

## Old Dominion University ODU Digital Commons

---

Psychology Theses & Dissertations

Psychology

---

Summer 2010

# Fat Talk Between Friends: Co-Rumination About Physical Appearance

Jonathan A. Rudiger  
*Old Dominion University*

Follow this and additional works at: [https://digitalcommons.odu.edu/psychology\\_etds](https://digitalcommons.odu.edu/psychology_etds)

 Part of the [Clinical Psychology Commons](#), and the [Social Psychology Commons](#)

---

### Recommended Citation

Rudiger, Jonathan A.. "Fat Talk Between Friends: Co-Rumination About Physical Appearance" (2010). Doctor of Psychology (PsyD), dissertation, Psychology, Old Dominion University, DOI: 10.25777/2s9v-8b15  
[https://digitalcommons.odu.edu/psychology\\_etds/318](https://digitalcommons.odu.edu/psychology_etds/318)

This Dissertation is brought to you for free and open access by the Psychology at ODU Digital Commons. It has been accepted for inclusion in Psychology Theses & Dissertations by an authorized administrator of ODU Digital Commons. For more information, please contact [digitalcommons@odu.edu](mailto:digitalcommons@odu.edu).

**FAT TALK BETWEEN FRIENDS: CO-RUMINATION ABOUT  
PHYSICAL APPEARANCE**

by

Jonathan A. Rudiger, M.A.  
B.S. May 2006, Old Dominion University  
M.A. August 2008, Norfolk State University

A Dissertation Submitted to the Faculties of

The College of William and Mary  
Eastern Virginia Medical School  
Norfolk State University  
Old Dominion University

In Partial Fulfillment of the Requirement for the Degree of

DOCTOR OF PSYCHOLOGY

CLINICAL PSYCHOLOGY

VIRGINIA CONSORTIUM PROGRAM IN CLINICAL PSYCHOLOGY  
August 2010

Approved by:

Barbara A. Winstead (Director)  
Old Dominion University

Robin J. Lewis (Member)  
Old Dominion University

Richard W. Handel (Member)  
Eastern Virginia Medical School

Louis H. Vanda (Member)  
Old Dominion University

Desideria S. Hacker (Member)  
Norfolk State University

## **ABSTRACT**

### **FAT TALK BETWEEN FRIENDS: CO-RUMINATION ABOUT PHYSICAL APPEARANCE**

Jonathan A. Rudiger, M.A.  
Virginia Consortium Program in Clinical Psychology, 2010  
Director: Dr. Barbara A. Winstead

In recent years, there has been a growing interest in the study of social and interpersonal factors that influence emotional adjustment and body image. Co-rumination is a new construct in the friendship literature which refers to discussing problems excessively and sharing negative feelings within the context of a close relationship. However, there is a lack of research with regard to the specific content of co-ruminative dialogues. In the body image literature, the term “fat talk” was coined to describe a negative, appearance focused dialogue that takes place in the context of female social circles. There have been no studies examining the “fat talk” phenomenon within the context of close female friendships. The present study attempted to unite the relatively new constructs of co-rumination and fat talk, while making unique contributions to their respective literatures. The purpose of this study was to examine the influence of appearance-specific co-rumination (i.e., fat talk between friends; FTBF), specifically as it relates to women’s body image, emotional adjustment, and friendship quality. A total of 209 women from Old Dominion University completed an online battery of questionnaires. The results revealed that FTBF was related to body image cognitive distortions and disturbed eating attitudes, yet it was paradoxically related to perceived friendship quality. These findings suggest that FTBF involves adjustment trade-offs, in that, it seems to positively contribute to friendship quality while negatively impacting

one's appearance-related cognitions and eating attitudes. Interestingly, FTBF was not found to be associated with appearance evaluation, appearance investment, self-esteem, or depression. In addition to these results, exploratory analyses were conducted to examine the differences between FTBF and non-ruminative fat talk (i.e., normative fat talk). These discrepancies were evaluated and discussed, especially with respect to limitations and future directions for research.

Copyright, 2009, by Jonathan A. Rudiger, M.A., and Old Dominion University,  
All Rights Reserved.

To my lovely bride, Ashley.  
You have always believed in me.

## ACKNOWLEDGMENTS

Although this dissertation represents a significant personal accomplishment, I must acknowledge that this would not have been possible without the encouragement and support I have received from my mentors, colleagues, family, and friends. This dissertation began as a personal journey, but it became a reflection of the collective effort of those who gave their time and energy to make this possible. I feel truly blessed to have had such an incredible experience and to celebrate this accomplishment with those who have contributed to my personal and professional development.

I would like to thank the chair of my dissertation committee, Dr. Barbara Winstead, for demonstrating a contagious passion for conducting meaningful research. I have been extremely fortunate to learn from extraordinary professionals who understand the importance of an encouraging word or maybe just a pat on the back. Dr. Winstead, you helped me to realize how far I have come and what I am capable of accomplishing. I have truly enjoyed our many conversations.

Additionally, I would like to express my gratitude and appreciation for the hard work of my committee. Dr. Lewis, you have been an example of professionalism and integrity throughout my training in the Virginia Consortium. Dr. Handel, you possess a wealth of knowledge and great sense of humor, which are both greatly appreciated. Dr. Janda, your insightful questions have always challenged me to stretch my understanding. Dr. Hacker, I have always appreciated your warm personality and unwavering support. I would also like to thank Dr. Thomas Cash, for the many years you have supported and encouraged me to achieve more than I believed possible.

Finally, I would like to thank my family for your support. Mom and Dad, I know that you are proud of me, but I am honestly proud to call you my parents. My lovely bride, Ashley, you are the sweetest and most loving woman in the world. I share this accomplishment with you and thank you for giving me the inspiration to write when I felt exhausted. When I struggled to find the right words to write, you were always there with an encouraging word and a warm smile. Ashley, you have been my strength and support through many trials in graduate school and I am forever in your debt. Lastly, I would like to thank God for allowing me to share this small part of my life with so many wonderful people.



## TABLE OF CONTENTS

	Page
LIST OF TABLES .....	ix
 Chapter	
I. INTRODUCTION .....	1
CO-RUMINATION .....	3
FAT TALK.....	9
HYPOTHESES.....	20
II. METHOD.....	21
PARTICIPANTS .....	21
MEASURES .....	21
PROCEDURE .....	27
III. RESULTS. ....	29
DATA SCREENING.....	29
HYPOTHESIS TESTING .....	29
EXPLORATORY ANALYSES.....	34
IV. DISCUSSION AND CONCLUSIONS .....	37
LIMITATIONS AND IMPLICATIONS .....	45
REFERENCES .....	49
 APPENDIXES	
A. FAT TALK BETWEEN FRIENDS QUESTIONNAIRE (FTBF) .....	59
B. FRIENDSHIP QUALITY QUESTIONNAIRE – SHORT FORM .....	63
C. BODY AREAS SATISFACTION SCALE (BASS) .....	64
D. APPEARANCE SCHEMAS INVENTORY REVISED (ASI-R) .....	65
E. ASSESSMENT OF BODY-IMAGE COGNITIVE DISTORTIONS (ABCD).....	66
F. EATING ATTITUDES TEST (EAT-26) .....	69
G. CENTER FOR EPIDEMIOLOGIC STUDIES DEPRESSION SCALE (CES-D).....	70
H. ROSENBERG SELF-ESTEEM SCALE (R-SES) .....	71
I. MARLOWE-CROWNE SOCIAL DESIRABILITY SCALE (MC-SDS) .....	72
J. DEMOGRAPHIC INFORMATION .....	73
K. PARTICIPANT NOTIFICATION FORM .....	74
L. DEBRIEFING SUMMARY .....	75
VITA.....	76

## LIST OF TABLES

Table	Page
1. Descriptive Statistics for Main Variables .....	30
2. Correlations of Perceived Friendship Quality, Appearance Evaluation, Appearance Investment, Body Image Cognitive Distortions, Depression, Self-Esteem and Eating Attitudes with Fat Talk Between Friends (FTBF) .....	32
3. Summary of Regression Analyses for the Prediction of Depression and Self-Esteem .....	33
4. Correlations of Perceived Friendship Quality, Body Image Variables, and Emotional Adjustment Variables with Normative Fat Talk and Self-Accepting/Positive Talk .....	35

## CHAPTER I

### INTRODUCTION

Over 20 years of psychological and social science research has demonstrated the importance of close same-sex friendships for physical and psychological well-being (Knickmeyer, Sexton, & Nishimura, 2002). Adler (1964, 1994) posited that “social interest” reflects an innate need to be connected to others and it has been alluded to as “the cornerstone of mental health” (Rareshide & Kern, 1991, p. 464). Thus, the majority of research on same-sex friendships has focused on the positive and protective aspects of friendships (Asher & Parker, 1989; Newcomb & Bagwell, 1995), while overlooking the potential negative consequences or risks associated with friendships (Brendgen, Vitaro, & Bukowski, 2000; Parker, Low, Walker, & Gamm, 2005).

One potentially maladaptive pattern of communicating in friendships is “co-rumination,” a term coined by Rose (2002) to refer to discussing problems excessively and sharing negative feelings within the context of a close relationship. Co-rumination has been linked to positive perceptions of friendship quality, yet it was associated with increased anxiety and depressive symptoms in women (Rose, 2002; Rose, Carlson, & Waller, 2007; Starr & Davila, 2009). However, there is a paucity of research with regard to the specific content of co-ruminative dialogues (Starr & Davila, 2009). In the body image literature, Nichter and Vuckovic (1994) introduced the term, “fat talk,” to describe a negative, appearance focused dialogue that takes place in the context of female relationships. In this respect, fat talk could be considered an appearance specific form of

---

The Publication Manual of the American Psychological Association (5<sup>th</sup> ed.) was the model used for this manuscript.

co-rumination, in which women excessively discuss negative aspects of their appearance. Although considered to be a common social phenomenon amongst women (e.g., Britton, Martz, Bazzini, Curtin, & LeaShomb, 2006), fat talk has not yet been studied in the context of close same-sex friendships.

Based on the notion that social connectedness is crucial to mental health, it seems counterintuitive to suggest that close friendships could lead to psychopathology. However, Bukowski and Adams (2005) conducted a review of the literature on friendship and found that there a number of risk factors associated with friendship. For example, research in the areas of “co-rumination” and “fat talk” has demonstrated that certain negative patterns of communication can have both positive (e.g., increased friendship quality and social attractiveness) and negative (e.g., increased depression, anxiety, low self-esteem, and negative body image) effects on social and psychological functioning (Ousley, Cordero, & White, 2008; Rose, 2002; Rose et al., 2007; Starr & Davila, 2009; Stice, Maxfield, & Wells, 2003; Tucker, Martz, Curtin, & Bazzini, 2007).

The present study attempted to unite the relatively new constructs of co-rumination and fat talk, while making unique contributions to their respective literatures. Starr and Davila (2009) stressed the importance of studying domain-specific forms of co-rumination, arguing that emotionally charged topics may be more likely to elicit the negative problem-focus associated with co-rumination. Fat talk, although not linked with the co-rumination literature, appears to represent an emotionally charged, domain-specific form of co-rumination. Prominent researchers in the fat talk literature have suggested that future research examine the relative influence of fat talk in various relational contexts, including close same-sex relationships (Britton et al., 2006; Craig,

Martz, & Bazzini, 2007; Tucker, et al., 2007). If fat talk is, in fact, an appearance-specific form of co-rumination, the social and psychological implications of such communication could be substantial. The purpose of this investigation was to assess the extent to which close female friends engage in fat talk and the impact fat talk has on perceived friendship quality, psychological well-being, and body image. The following sections will elaborate on the specific bodies of literature related to co-rumination and fat talk.

### **Co-rumination**

The term “co-rumination” was first introduced by Rose (2002) and was intended to address a maladaptive pattern of communication in same-sex friendships. “Co-rumination refers to excessively discussing personal problems within a dyadic relationship and is characterized by frequently discussing problems, discussing the same problem repeatedly, mutual encouragement of discussing problems, speculating about problems, and focusing on negative feelings” (Rose, 2002, p. 1830). Although co-rumination is speculated to occur across age groups, there is only one published study that examines the effects of co-rumination in adults (Byrd-Craven, Geary, Rose, & Ponzi, 2008). Targeting the developmental period of adolescence, researchers have focused on studying co-rumination within the context of same-sex friendships (Rose, 2002; Rose et al., 2007; Starr & Davila, 2009).

Co-rumination involves two important processes, self-disclosure and rumination, which are derived from the friendship and emotional adjustment literatures. First, self-disclosure (i.e., sharing personal thoughts and feelings) has been linked to positive friendship quality (e.g., Parker & Asher, 1993) and emotional closeness (e.g., Camarena, Sarigiani, & Peterson, 1990). The second aspect of the co-rumination construct,

rumination (i.e., focusing on one's own problems or negative affect), has been linked to concurrent and future depressive affect among adults (Nolen-Hoeksema, Morrow, & Fredrickson, 1993; Nolen-Hoeksema, Parker, & Larson, 1994). Rumination involves dwelling on negative thoughts and feelings without taking action to relieve them. Therefore, co-rumination can be thought of as a form of reciprocal rumination, which takes place within a close same-sex dyad.

The co-rumination literature has focused on close friendships because research has shown that friends are more likely to self-disclose to one another than non-friends (Newcomb & Bagwell, 1995). Self-disclosure, per se, is not related to emotional adjustment problems; rather it is related to higher quality friendships (e.g., Parker & Asher, 1993) and psychological well-being (e.g., Pennebaker, 1997). Self-disclosure becomes potentially problematic when the content of the disclosure is excessively focused on problems and negative affect (Rose, 2002; Rose et al., 2007; Byrd-Craven et al., 2008). That is, self-disclosure that involves revisiting problems, speculating about problems, and dwelling on negative feelings can be detrimental to emotional adjustment.

On the other hand, it is well-known and accepted in the field of psychology that rumination contributes to psychological maladjustment. In fact, eliminating or at least reducing rumination is a major aspect of empirically supported treatments for depression and anxiety (e.g., Ledley, Marx, & Heimberg, 2005). Rumination is typically thought of as an individual, cognitive process, in which individuals mentally rehearse negative thoughts and dwell on negative feelings. In 2002, Rose recognized the importance of uniting the self-disclosure and rumination constructs, examining the impact of social rumination or "co-rumination." In doing so, she considered the potential positive social

implications, while taking into account the potential negative psychological implications of co-rumination. To understand the premise of co-rumination, it is important to consider the aforementioned findings with regard to the constructs of self-disclosure and rumination.

In her seminal article on co-rumination, Rose (2002) described co-rumination as a process more likely to occur between female friends. Research has shown that females spend more time in dyads (e.g., Benenson, Apostoleris, & Parnass, 1997; Thorne, 1986) and self-disclose more frequently (e.g., Buhrmester & Furman, 1987; Camarena et al., 1990; Dindia & Allen, 1992; Parker & Asher, 1993) than do males. Rose (2002) posited that the typical nature of female same-sex interactions was more conducive to developing co-ruminative dialogues. For example, she argued that because males spend more time participating in group activities (e.g., Ladd, 1983; Moller, Hymel, & Rubin, 1992), they would be less likely to encounter co-ruminative dialogues compared to females. In this regard, co-rumination was introduced as a potentially gender-specific phenomenon, which may lead to positive and negative outcomes. Rose (2002) suggested that co-rumination may partially explain why females have higher quality, closer friendships than do males (e.g., Bukowski et al., 1994; Camarena et al., 1990; Rose & Asher, 1999), but tend to report higher levels of negative affect (Cole, Martin, Peeke, Seroczynski, & Fier, 1999; Peterson, Sarigiani, & Kennedy, 1990; Reynolds & Richmond, 1978; Wichstrom, 1999).

Rose (2002) utilized a sample consisting of both children and adolescents to assess the newly created construct. The results confirmed the hypothesis that females, especially adolescent females, reported engaging in co-rumination more frequently than

did males. Co-rumination, as measured by the 27-item Co-rumination Questionnaire, was related both to positive friendship quality and to emotional maladjustment. Rose included separate measures of self-disclosure and rumination to examine the unique impact of these variables while controlling for each. As expected, the results revealed that self-disclosure was only related to positive friendship quality, and rumination was only related to emotional maladjustment. Although no causal conclusions could be drawn from this study, the results confirmed the underlying premise behind the co-rumination construct. Rose posited that there are adjustment trade-offs with respect to co-rumination, in that, co-ruminative dialogues serve as emotionally charged self-disclosures which build intimacy and enhance friendships, while acting as a forum for the reciprocal rehearsal of negative thoughts and feelings.

In an extension of Rose (2002), Rose and colleagues (2007) conducted a large study to examine the temporal ordering of the relations between co-rumination and adjustment. Although the results of Rose (2002) confirmed the associations between co-rumination, friendship quality, and emotional adjustment, data were only collected at one time point, whereas Rose and colleagues (2007) collected data from both children and adolescents at two time periods. For females, the results of this study revealed that co-rumination predicted increases in feelings of closeness and friendship quality, while also predicting increases in depressive and anxiety symptoms over a six month period. Additionally, they found that initial levels of adjustment including positive friendship quality and higher levels of depression and anxiety predicted increases in co-rumination at the six month follow-up. For males, co-rumination was only linked to positive friendship quality. Interestingly, these findings suggest that close same-sex friendships



may play a unique and ironic role for females, such that the desire to have close friendships may lead to higher levels of co-rumination and thus more emotional maladjustment.

In a recent study, Starr and Davila (2009) examined the co-rumination process in adolescent females in an attempt to replicate the findings of Rose and colleagues (2007), while contributing new information with regard to empirical correlates of co-rumination. As predicted, co-rumination was concurrently related to depressive symptoms and positive aspects of friendship, including friendship security and communication. Additionally, they found that females who co-ruminate perceive themselves to be more interpersonally competent in same-sex and opposite-sex relationships. However, contrary to Rose et al. (2007), co-rumination was not found to be a significant predictor of increased depression at the one year follow-up assessment. Having noted the modest but similar effect size, the authors suggested that the non-significant finding may have been due to the smaller sample size and longer interval between assessments.

Starr and Davila (2009) acknowledged that there may have been a number of factors that contributed to the findings and they stressed the importance of examining other factors that may moderate the relationship between co-rumination and depression. Specifically, they found that co-rumination was associated with higher levels of romantic experiences, as well as having a higher number of male friends. In fact, romantic involvement moderated the relationship between co-rumination and depressive symptoms, such that co-rumination predicted increases in depressive symptoms for adolescent females with more romantic experiences and decreases for those with fewer. Starr and Davila speculated that co-rumination may be more depressogenic when it is

focused on a potentially distressing topic, such as adolescent romantic relationships.

Given this finding, the authors encouraged future researchers to identify distressing topics of co-rumination in other domains. Additionally, it may be possible that the relationship between co-rumination and depression is curvilinear rather than linear. That is, there may be a stronger relationship at higher levels of co-rumination, whereas the relationship at lower levels may be negligible.

One of the most recently published studies of co-rumination (i.e., Byrd-Craven et al., 2008) experimentally examined adult females' hormonal stress response following a co-ruminative dialogue between close friends. The researchers utilized pre and post levels of salivary cortisol (i.e., hormonal stress levels) to determine if "problem talk," as compared to "neutral talk," leads to increased stress. Dyads of close female friends were randomly assigned to an experimental group (i.e., discussion of a current personal problem) and control group (i.e., discussion of plans for designing a new recreation center). Both groups were instructed to engage in a videotaped discussion for approximately 17 minutes. The videotapes were viewed by multiple raters and total co-rumination scores were tabulated using a coding system developed by Rose, Schwartz, and Carlson (2005). As expected, the dyads in the "problem talk" group engaged in significantly more co-rumination than did those in the "neutral talk" group. Most importantly, they found that co-rumination was associated with significantly higher levels of cortisol immediately (i.e., within 15 minutes) following the discussion period. More specifically, dwelling on negative affect was most strongly associated with women's increased stress response. Although physiologically focused, these findings provide unique support for the co-rumination construct.

Given the short history of the co-rumination construct, there is a dearth of information regarding the nature and focus of co-ruminative dialogues. Research has shown that co-rumination is associated with perceived friendship quality and emotional maladjustment (e.g., Rose, 2002; Rose et al., 2007; Starr & Davila, 2009); however, there have been no attempts to identify specific topics of co-rumination. Starr and Davila (2009) posited that emotionally charged topics (e.g., romantic relationships) may elicit higher levels of co-rumination in adolescent females. The dramatic increase in stressors that occurs in adolescence may propel young women into co-ruminative dialogues, ironically resulting in increased distress. The developmental transition from adolescence into early adulthood appears to be a critical period for future investigations, as persons in this age range are facing a number of potential stressors (e.g., romantic relationships, body image, life-cycle transitions, family, college, and work), which may provide negative material for co-ruminative dialogues. The following section will describe a particular type of self-deprecating communication regarding one's appearance (i.e., "fat talk"), which may be a normative topic of conversation in co-ruminative dialogues among young women.

### **Fat Talk**

Over the past 50 years, there has been a dramatic increase in the western cultural ideal of female thinness (O'Dea, 1995). Research has shown that those who are exposed to and strive for the thin ideal are more likely to experience body image disturbance (Field et al., 2001; Groesz, Levine, & Murnen, 2002). Just as the cultural ideal of thinness became more prominent in western culture, scientific research began to find significant increases in the average body mass of adult women in the United States (e.g., Garner,

Garfinkel, Schwartz, & Thompson, 1980). Thus, many women failed to adhere to the cultural standards of beauty, making it difficult to psychologically reconcile the difference between their actual appearance and the cultural ideal (Rodin, Silberstein, & Striegel-Moore, 1985). In fact, the results of a large meta-analysis including over 40 years of research revealed that there was a notable increase in body dissatisfaction among women across time (Feingold & Mazella, 1998). Moreover, a nationally representative survey found that nearly 50% of adult women in the United States reported negative evaluations of their appearance (Cash & Henry, 1995). Collectively, these findings suggest that body dissatisfaction has become an increasingly normative experience among women.

As body dissatisfaction has become increasingly common among women in the United States, social scientists have targeted numerous social factors to explain the trend. Over the past decade, researchers have become increasingly interested in “fat talk,” an interpersonal phenomenon occurring in many female social circles (Britton et al., 2006; Craig et al., 2007; Nichter, 2000; Nichter & Vuckovic, 1994; Ousley et al., 2008; Stice et al., 2003; Tucker et al., 2007). The concept of “fat talk,” first described by Nichter and Vuckovic (1994), refers to making negative self-statements about one’s physical appearance in a social context. In their seminal publication, Nichter and Vuckovic described fat talk as an increasingly popular social exchange among women, especially adolescent girls, in which self-deprecation of one’s appearance is used both to gain social acceptance and to provide social support for friends experiencing body dissatisfaction.

Although fat talk is a relatively new term in the body image literature, the notion that female social groups frequently engage in discussions about body dissatisfaction is

certainly not a novel revelation (e.g., Hope, 1980). Dindia and Allen (1992) found that women tend to disclose more personal information in social interactions than do men, which may partially explain why topics such as physical appearance are more likely to surface in discussions among women. Assuming that body dissatisfaction is normative (Rodin et al., 1985), disclosing negative thoughts and feelings about one's body may serve an adaptive function in female social circles (Hope, 1980; Nichter, 2000). Self-degrading statements in a social context may help young women "fit in" and conform to the social norm of body dissatisfaction (Nichter, 2000). Nichter argued that making positive statements about one's body may actually alienate other women and result in isolation from one's peer group. Other researchers have pointed out the tendency for women to act friendly and emphasize similarities when interacting with other women (e.g., Tannen, 1990). Acting friendly and emphasizing similarities with respect to body image may involve engaging in fat talk, which likely contributes to feelings of closeness and similarity among friends, while perpetuating the self-deprecating cycle.

Research has shown that women tend to conform to social norms while interacting to preserve collective harmony and increase positive feelings (Eagly, 1987). Additionally, the extant norm for women to act and speak modestly (e.g., Janoff-Bulman & Wade, 1996; Miller, Cooke, Tsang, & Morgan, 1992) may contribute to the self-deprecation involved in fat talk. Nichter (2000) found that adolescent girls reported engaging in fat talk as a means of "justifying their modesty" in a social situation. Abstaining from fat talk in a conversation about appearance was perceived as aloof and often misinterpreted in a negative light. Thus, women may participate in fat talk as a way of gaining social acceptance, enhancing and preserving relational harmony, and

demonstrating modesty, regardless of whether they actually experience body dissatisfaction. Although Nichter and Vuckovic (1994) and Nichter (2000) described fat talk as a common phenomenon among teenage girls, they asserted that women of all ages may engage in fat talk to some extent.

In the first empirical article examining the effects of fat talk, Stice and colleagues (2003) conducted an experimental study using a college student population. The purpose of this study was to evaluate the impact of exposure to fat talk on body image and psychological well-being. A fat talk situation was artificially created in a laboratory setting using a thin, attractive female confederate. Female participants were asked to complete a battery of questionnaires and enter a room with the confederate posing as another participant. After watching a short video clip, the confederate induced a fat talk situation by making self-deprecating statements regarding her weight and extreme exercise routine. In the control condition, the confederate commented on her classes and her plans for the weekend. Immediately following the experimental manipulation, participants were required to complete follow-up questionnaires.

Stice et al. (2003) demonstrated that exposure to fat talk led to significant increases in body dissatisfaction relative to the control group. This study provided the first experimental evidence for the adverse effects of fat talk among young adult women. The authors emphasized that this finding was especially alarming given that previous research (e.g., Stice, 2002b) has demonstrated the strong connection between body dissatisfaction and eating pathology. Although there was a medium effect size for change in body image, there was no significant increase in negative affect following exposure to fat talk. Stice and colleagues (2003) speculated that emotional disturbance may be a more

distal consequence of repeated fat talk exposure, whereas changes in body image may be a more immediate consequence. Therefore, it is not surprising that a relatively brief fat talk exposure did not produce serious changes in emotional functioning. Nonetheless, this study provided the first strong empirical support for the premise that engaging in fat talk may result in detrimental psychological outcomes.

Following in the footsteps of Stice et al. (2003), Tucker and colleagues (2007) conducted an experimental study examining the influence of fat talk in female dyads. Similar to Stice et al. (2003), female confederates posed as study participants; however, the confederates were selected to represent the “average” college females’ body shape and size, as opposed to the “thin, attractive, and tall” models used by Stice and colleagues. The study participants were asked to participate in a brief interview with another participant (i.e., the confederate), who had a pre-rehearsed script for the interview. Participants were randomly assigned to one of three interview conditions: (a) confederate self-derogates body; (b) confederate self-accepts body; and (c) confederate self-aggrandizes body. The confederates and participants were each asked to respond to three questions. The first two questions were neutral, but the third question asked “How do you feel about your body and how you look?” The confederate was always asked to respond first and her responses to the first two questions were consistent across all experimental conditions. Her response to the third question varied depending on the experimental condition.

The main purpose of the Tucker et al. (2007) study was to determine if the body presentational style of another woman would influence how a woman subsequently presents her own body image. The findings supported the hypothesis that women would

reciprocate the body image presentational style of the confederate, which is consistent with the self-disclosure literature that has documented a reciprocity norm among dyads engaging in a conversation (e.g., Deforest & Stone, 1980). Thus, a woman engaging in fat talk is likely to elicit self-derogatory statements (i.e., fat talk) from other women in a conversation. Contrary to their prediction, making positive self-statements did not decrease the perceived likeability of the confederate. It was speculated that no relationship was found because the statement was made in the context of a dyad and not a group of women. Perhaps making positive self-statements within a dyadic interaction is perceived differently than making these statements within a female social group. Moreover, it should be noted that the brief and artificial nature of the interaction may have curtailed the negative social impact of making positive self-statements.

Tucker and colleagues (2007) found that participants' posttest body image ratings were predicted by pretest body esteem levels. It is important to consider these pretest levels, as they may function as a moderating variable for the relationship between participating in fat talk and experiencing negative affect. That is, body dissatisfied women may experience a stronger negative emotional reaction to fat talk exposure. Although this is purely speculative and beyond the scope of Tucker et al. (2007), it may be that individuals with higher body esteem levels at pretest are protected from the emotional impact of exposure to fat talk.

In another recent experimental study of fat talk, Craig et al. (2007) examined the extent to which audience type (i.e., private audience, public audience, public female audience, and public male audience) influenced body self-presentation. Using a female college student sample, the researchers randomly assigned participants to one of the four



audience conditions. Participants completed a pretest set of questionnaires and were then told that they would be completing another set of questionnaires; however, the instructions varied depending on the audience type. In the private condition, participants were informed that their responses regarding their bodies would be kept private and only viewed by one researcher. In the other conditions, participants were informed that either male or female research assistants would be viewing their responses and making judgments about them based on these responses. Additionally, participants were shown images of either attractive female or male research assistants on a PowerPoint screen. Following the experimental manipulation, they were asked to complete the packet of questionnaires a second time.

Contrary to their hypotheses, Craig and colleagues (2007) found that body presentational style did not vary as a function of time or audience type. Based on the premise that fat talk involves social pressure to engage in impression management (e.g., Nichter & Vuckovic, 1994; Nichter, 2000), these findings contradict the notion that women alter their body presentational style depending on the audience. However, the authors acknowledged that there were serious limitations to external validity, including but not limited to, the use of an “imaginary audience,” as opposed to the presence of a “real audience.” Fat talk or engaging in self-deprecating speech about one’s body has been described as a verbal, interpersonal process (e.g., Nichter & Vuvkovic, 1994), and removing the “person element” from the experimental manipulation may have accounted for the non-significant findings. Craig and colleagues (2007) concluded that external validity was highly compromised for the sake of internal validity. They suggested that

future studies attempt to explore the influence of audience type using more naturalistic and externally valid methods.

Despite the interesting results, experimental studies (e.g., Stice et al., 2003; Tucker et al., 2007) have been unable to assess whether similar fat talk situations occur among college students outside of the laboratory. In order to determine whether fat talk is perceived as normative among college students, Britton et al. (2006) conducted two independent studies using a brief vignette describing four college females studying for a biology exam during which their conversation shifted to a discussion of body dissatisfaction (i.e., fat talk). In the first study, three of the women described in the vignette had already made self-disparaging remarks about their bodies. Study participants (from the perspective of the fourth woman) were asked to choose their response to the group. The response choices included: (a) making a self-accepting response; (b) no comment or silence; or (c) making a self-disparaging response. Additionally, participants were asked about the likelihood of the target females' response in reference to different audiences.

The results of the first study showed that both male and female participants perceived making self-disparaging remarks about one's body (i.e., fat talk) as normative among college women. When asked how "most women" would respond, no female and very few male participants selected the self-accepting response. Moreover, both male and female participants believed that making the self-degrading response would make the woman more likeable. Interestingly, however, when women were asked how "they personally" would respond, there were no significant differences between any of the three responses. That is, although female participants acknowledged fat talk as normative, they

themselves denied engaging in fat talk as often as “most women.” One possible explanation for this finding may be what is known as the “third-person effect.” This phenomenon refers to the belief that something will have an effect on others, but will not have an effect on oneself (Davidson, 1983). Moreover, the “third-person effect” may increase when the individual must acknowledge something perceived as negative (Cohen & Davis, 1991; Gunther & Thorson, 1992), such as making self-disparaging comments.

In their second study, Britton et al. (2006) utilized the same fat talk vignette and asked participants to provide an open-ended response for the fourth woman in the scenario. The researchers developed a coding system and used independent raters to code the open-ended responses. Based on inter-rater reliability values, responses were categorized as either “self-derogatory” or “non self-derogatory.” When participants were allowed to provide their own response, 85% of the participants produced a self-derogatory statement. Although many of the participants in the first study disavowed engaging fat talk, the results from the second study support the notion that women tend to spontaneously generate fat talk when faced with a fat talk scenario. It is important to note that participants did not suggest avoidance or silence as an appropriate response. Nichter and Vuckovic (1994) posited that young females perceive avoidance or remaining silent as “stuck-up” or conceited, and therefore, they often choose to engage in fat talk as opposed to avoiding the subject. Collectively, the results of Britton et al. (2006) suggest that fat talk is perceived to be a normative social experience among college women, although some women may deny participating in fat talk for various reasons.

Assuming that fat talk is a normative experience among college women, Ousley et al. (2008) conducted a study to examine the frequency of fat talk among college students

with and without eating pathology and body image disturbance. In order to obtain these data, the researchers utilized a modified version of the Weight Management Questionnaire (WMQ; Ousley, 1986). The WMQ was modified to assess for eating disorder symptoms as described in the DSM-IV-TR, including symptoms of Bulimia Nervosa and Eating Disorder, Not Otherwise Specified. In addition to this measure, items were added to assess for the frequency of five possible fat talk subjects, including self-comparison to ideal eating and exercise habits, fears of becoming overweight, comparison of eating and exercise habits to those of others, evaluations of others' appearances, and dieting. Using the WMQ scores, the researchers were able to systematically distinguish between those individuals with and without eating disorders.

Ousley and colleagues (2008) found that college students categorized as having an eating disorder reported engaging in fat talk significantly more often than those in the no eating disorder group. As implied by Stice et al. (2003), higher levels of fat talk may lead to higher levels of body dissatisfaction and therefore higher levels of eating pathology. Although it is not possible to infer causality from the survey methodology used by Ousley et al. (2008), the findings support the prospective relationship between fat talk, body dissatisfaction, and eating pathology. Moreover, these results support the findings of Tucker and colleagues (2007), which posited that individuals with higher levels of body image disturbance may be more susceptible to the negative emotional consequences of fat talk exposure. Ultimately, Ousley and colleagues (2008) concluded that fat talk is very common among college students and is linked to higher levels of body image disturbance and eating pathology.

In the past few years there has been increasing interest in the concept of fat talk, especially since the phenomenon has been found to be normative among college students (e.g., Britton et al., 2006; Ousley et al., 2008) and not just an adolescent population (e.g., Nichter & Vuckovic, 1994; Nichter, 2000). In addition to the research identifying fat talk as a normative communication pattern among young females, experimental research has linked fat talk with negative consequences, such as reduced body esteem (e.g., Stice et al., 2003). Conceptually, fat talk has been considered a process that takes place among females socializing in groups (e.g., Nichter, 2000; Britton et al., 2006); however, it is also likely that fat talk surfaces in conversations between female dyads. Moreover, researchers have suggested examining the frequency and influence of fat talk within the context of a close female dyad (e.g., Britton et al., 2006; Stice et al., 2003), as this may yield unique information about the construct.

The purpose of this study was to examine the influence of fat talk between friends (FTBF), specifically as it relates to body image, emotional adjustment, and friendship quality. Repeated discussion of personal problems in a close friendship (i.e., co-rumination) has been linked to poor emotional adjustment but positive friendship quality (e.g., Rose, 2002; Rose, 2007). Given the negative impact of fat talk exposure on body image (e.g., Stice et al., 2003; Tucker et al., 2007), it may be that repeated exposure to fat talk results in more body dissatisfaction and mood disturbance. Britton et al. (2006) posited that fat talk is a normative social phenomenon occurring among college females. If fat talk is, in fact, normative among college females, there is reason to believe that fat talk takes place in a variety of interpersonal contexts, including the context of a close friendship. It may be that close friendships provide a safe outlet to share negative feelings

about one's appearance, resulting in more frequent discussion of negative appearance-related problems.

### **Hypotheses**

1. After controlling for social desirability, fat talk between friends (FTBF) should be correlated with: perceived friendship quality, appearance evaluation, investment in one's appearance for self-worth, body image cognitive distortions, depression, self-esteem and eating attitudes. Women who report engaging in FTBF more frequently should report higher perceived friendship quality, but more appearance dissatisfaction, more dysfunctional investment in appearance, more body image cognitive distortions, more depressive symptoms and lower self-esteem, and more disturbed eating attitudes. Ironically, FTBF may positively influence perceived friendship quality, while contributing to negative psychological outcomes.
2. Investment in one's appearance for self-worth is expected to moderate the relationship between FTBF and emotional adjustment such that at higher levels of investment, the relationship between FTBF and emotional adjustment strengthens, whereas at lower levels, the relationship weakens. Given the presence of dysfunctional investment (i.e., high levels of appearance investment), the relationship between FTBF and depression, and FTBF and low self-esteem should strengthen.

## CHAPTER II

### METHOD

#### Participants

A total of 209 women from Old Dominion University participated in exchange for research credit. Participants ranged in age from 18 to 52, with a median age of 19 ( $SD = 5.1$ ). With respect to current academic standing, the sample consisted of 41.6% Freshmen, 25.8% Sophomores, 18.2% Juniors, 13.9% Seniors, and 0.5% Graduate Students. The participants were 61.2% Caucasian, 20.6% African American, 8.1% Multi-racial, 4.3% Hispanic, 3.8% Asian, 1.4% Other, and 0.5% Native American/Alaskan Native. Body mass indices ( $BMI = kg/m^2$ ) ranged from 15.0 to 40.0 ( $M = 24.0$ ,  $SD = 5.1$ ).

Old Dominion University's College of Sciences Human Subjects Committee reviewed this study and deemed it exempt from further IRB review. All participants were treated ethically and in compliance with the standards set by the College of Sciences Human Subjects Committee and by the American Psychological Association.

#### Measures

Prior to completing the measures which inquired about appearance-related communication and perceived friendship quality, participants were asked to think of their best or closest female friend with whom they communicate on a regular basis. Participants were instructed to think of the same best or closest female friend when responding to these measures. The questionnaires measuring body image and emotional adjustment did not include items related to this relationship.

*Fat Talk Between Friends Questionnaire (FTBF)*. The FTBF is an adaptation of the Co-Rumination Questionnaire (Rose, 2002), specifically designed to assess

appearance-focused co-rumination (Appendix A). The original questionnaire was designed to measure non-specific co-rumination between same-sex friends, which involves excessively discussing personal problems without taking action to resolve the problems. Wherever the original measure refers to “discussing personal problems,” the adapted version refers to “discussing problems related to physical appearance or dieting/exercise behaviors.” The measure consists of nine content areas which yield an overall score including: (a) frequently discussing the problem, (b) discussing problems instead of engaging in other activities, (c) encouragement for the friend to discuss problems, (d) encouragement by the friend to discuss problems, (e) discussing the same problem repeatedly, (f) speculation about problem causes, (g) speculation about problem consequences, (h) speculation about parts of the problem that are not understood, and (i) focusing on negative feelings. Examples are “When one of us has a problem related to physical appearance or dieting/exercising behaviors, we talk to each other about it for a long time” and “If one of us has a problem related to physical appearance or dieting/exercising behaviors, we will spend our time together talking about it, no matter what else we could do instead.” Each item was rated on a 5-point Likert scale ranging from *Not At All True* to *Really True*. Cronbach’s alpha for the modified scale was .97, which is consistent with the alpha (.96) reported for the original co-rumination measure (Rose, 2002).

*Normative Fat Talk.* In addition to the items assessing appearance-focused co-rumination (i.e., FTBF), there were 3 items assessing the frequency of non-ruminative fat talk (i.e., normative fat talk). Given the excessive, problem-focused nature of the co-ruminative fat talk items on the FTBF questionnaire, additional items were included in



the questionnaire to assess for less ruminative, negative appearance-related dialogue (Appendix A). For example, “Imagine you and your best or closest female friend saying *negative* things about your bodies (For example, “My butt is fat” or “I don’t like my hair”). How often would this occur between you and your friend?” Participants were asked to rate their response on a 5-point Likert scale ranging from *Never* to *Very Frequently*. Cronbach’s alpha was .83 for the normative fat talk items.

*Accepting/Positive Appearance-Related Talk.* Six items were included to assess for the frequency of self-accepting/positive appearance-related talk (Appendix A). For example, “Imagine you and your best or closest female friend saying *self-accepting or positive* things about your bodies (For example, “I feel okay about my body” or “I really like my body). How often would this occur between you and your friend?” Participants were asked to rate their response on a 5-point Likert scale ranging from *Never* to *Very Frequently*. Due to the strong correlation ( $r = .81$ ) between the self-accepting and positive talk items, the researcher combined the data to form one scale. Cronbach’s alpha was .95 for the accepting/positive appearance-related talk items.

*Friendship Quality Questionnaire-Adapted Short Form.* Participants responded to a shortened, 18-item version (see Rose, 2002) of the Friendship Quality Questionnaire (Parker & Asher, 1993). Rose (2002) adapted items from the FQQ and other friendship measures in her seminal study of co-rumination (Appendix B). The items were designed to assess various dimensions of friendship including: validation and caring, conflict resolution, help and guidance, companionship and recreation, intimate exchange, and conflict and betrayal. In addition to these items, participants responded to seven items assessing emotional closeness, which were adapted from other friendship measures (e.g.,

Bukowski, Hoza, & Boivin, 1994; Camarena et al., 1990). Participants were asked to think of their closest female friend with whom they interact frequently. Each item was rated on a 5-point Likert scale ranging from *Not At All True* to *Really True*. Cronbach's alpha for this measure was .92, which is consistent with previous research (e.g., Rose et al., 2007).

*Body Areas Satisfaction Scale (BASS)*. The BASS (Cash, 2000) is a frequently used, 9-item measure of appearance evaluation (Appendix C). It is a subscale of the Multidimensional Body Self-Relations Questionnaire (MBSRQ). The BASS measures body satisfaction-dissatisfaction on a 5-point Likert scale and assesses eight distinct body areas and attributes (e.g., face, height, weight, and hair), in addition to assessing overall appearance. The BASS's 1-month test-retest reliability ranges from .74 to .86 (Cash, 2000). Cronbach's alpha for the BASS was .84, which is consistent with the literature (e.g., Giovannelli, Cash, Henson, & Engle, 2008).

*Appearance Schemas Inventory - Revised (ASI-R)*. The ASI-R (Cash, Melnyk, & Hrabosky, 2004) is a 20-item scale intended to assess investment beliefs and assumptions about the importance of appearance in one's life (Appendix D). All 20 items are rated on a 5-point scale from 1 = *Strongly Disagree* to 5 = *Strongly Agree*. There were two factor scales that were extracted from the ASI-R. Motivational Salience consists of eight items that reflect the importance of being attractive and appearance management and enhancement. An example of Motivational Salience would be, "Before going out, I make sure that I look as good as I possibly can." Self-Evaluative Salience is the second subscale of the ASI-R, consisting of 12 items that reflect beliefs that one's appearance is an important determinant of one's worth and one's experiences. For example, "If I dislike

how I look on a given day, it's hard to feel happy about other things." Cronbach's alpha was .87 for the Total scale, .79 for the Self-Evaluative Saliency subscale, and .84 for the Motivational Saliency subscale. These reliabilities are consistent with previous research (e.g., Rudiger, Cash, Roehrig, & Thompson, 2007).

*Assessment of Body Image Cognitive Distortions (ABCD).* The ABCD (Jakatdar, Cash, & Engle, 2006) is an 18-item measure of the extent of problematic thought patterns when processing information about physical appearance (Appendix E). This measures a crucial cognitive dimension in the vulnerability to body image disturbances as well as eating pathology (Cash, 1997, 2002; Cash & Strachan, 1999). This measure poses 18 hypothetical situations and mental conversations that take place in the context of a particular situation. Participants are asked to rate their agreement with the hypothetical statement by rating the statement on a scale from 0 = *Not at all like me* to 4 = *Exactly like me*. Cronbach's alpha was .94, which is consistent with the limited research utilizing this measure (e.g., Jakatdar et al., 2006; Rudiger et al., 2007).

*Eating Attitudes Test (EAT-26).* The EAT-26 (Garner, Olmsted, Bohr, & Garfinkel, 1982) is an abridged 26-item version of the original scale, which is used to detect persons at risk for eating disorders (Appendix F). The scale measures dieting, bulimia and food preoccupation, and oral control. Items on the EAT-26 consist of such statements as: "I throw up after I eat"; "I think about burning up calories when I exercise"; "I feel that food controls my life"; and, "I spend too much time thinking about food." Participants rate how the items on the scale describe them using a 6-point scale ranging from 0 = Never to 5 = Always. Higher scores on the EAT-26 indicate more

disturbed eating attitudes and behaviors. Cronbach's alpha was .91, which is consistent with previous studies (Giovannelli et al., 2008; Jakatdar et al., 2006; Rudiger et al, 2007).

*Center for Epidemiologic Studies Depression Scale (CES-D).* The CES-D (Radloff, 1977) is a 20-item measure of self-reported symptoms of depression (Appendix G). Participants were asked to reflect on how they have felt and behaved during the past six months using a 4-point scale ranging from *rarely or none of the time* to *most or all of the time*. For example, "I felt depressed" and "I had crying spells." Higher scores reflect greater depressive symptomatology. The original scale was modified for the purposes of this investigation to include the *past six months* as opposed to the *past week* in order to assess for more pervasive and long standing depressive symptoms. Research has shown that the CES-D effectively distinguishes between individuals diagnosed with and without depression 85% of the time (Radloff, 1977). However, the measure was specifically designed for research in the general population. Cronbach's alpha was .91 for the modified scale and has been reported between .85 and .90 for the original scale (Radloff, 1977).

*Rosenberg Self-Esteem Scale (SES).* The SES (Rosenberg, 1965) is a commonly used, 10-item measure of global self-esteem (Appendix H). Using a 4-point scale ranging from *Strongly Agree* to *Strongly Disagree*, participants were asked to respond to 10 statements pertaining to self-worth and self-acceptance. Although the scale was originally developed to assess self-esteem among adolescents, it has been found to be useful for college student and adult samples (e.g., Kaplan & Pokorny, 1969; Silbert & Tippet, 1965). For the purposes of this study, it was be used to supplement the information gleaned from the CES-D. Cronbach's alpha was .88, which is consistent with research in

the literature (e.g., Rusticus, Hubley, & Zumbo, 2004).

*Marlowe-Crowne Social Desirability Scale (MC-SDS).* The MC-SDS (Crowne & Marlowe, 1960) is a reliable and valid 33-item measure designed to detect the tendency to respond in a socially appropriate or desirable manner (Appendix I). The items are comprised of attitudes and behaviors which are culturally sanctioned and approved, but which are improbable in occurrence. Participants were asked to respond *True* or *False*, as the item pertains to them. For example, “I never hesitate to go out of my way to help someone in trouble.” This instrument is frequently used to distinguish between the effects of item content and participants’ need to appear in a positive light. The MC-SDS is frequently used in survey research, especially when participants are asked to answer other questionnaires containing personal items. Due to the personal nature of many of the questionnaires included in this investigation, the MC-SDS was included as a control measure. Cronbach’s alpha was .76, which falls within the range reported in previous studies (e.g., Ballard, 1992; Crowne & Marlowe, 1960; Fischer & Fick, 1993; Loo & Thorpe, 2000; Reynolds, 1982).

*Demographic Questionnaire.* The demographics questionnaire consisted of questions concerning participants’ age, gender, race, height, and current/ideal weight (Appendix J).

## **Procedure**

Participants for this study were recruited using an online experiment management system (SONA) at Old Dominion University. The questionnaire was administered online using Inquisite, an online survey building program. After reading the participant notification form, participants anonymously completed the questionnaires. The

questionnaire sequence was randomized to address possible order effects. Participants received research credit in their respective psychology courses as compensation for their time. Additionally, participants were provided with referral information for the Old Dominion University Counseling Center.

## CHAPTER III

### RESULTS

#### Data Screening

Prior to conducting inferential statistics, descriptive statistics (see Table 1) and frequencies were calculated to check for missing data, skewness, kurtosis, and univariate and multivariate outliers. Univariate outliers were corrected by recoding any outlier to the next highest or lowest value within the normal distribution (Tabachnick & Fidell, 2001). In order to assess for multivariate outliers, a Mahalanobis distance test was conducted and revealed four multivariate outliers which were subsequently deleted from the dataset, resulting in a final sample of 209 women.

#### Hypothesis Testing

Pearson correlations and multiple regression analyses were conducted in order to test the two main hypotheses. Although hypothesis 1 indicated that social desirability would be used as a control variable, the results revealed the relationship between FTBF and social desirability to be negligible ( $r = -.03, ns$ ). As a consequence, the researcher elected not to use the social desirability scale as a control variable for the following analyses.

Hypothesis 1 stated that women who report engaging in FTBF more frequently should report higher perceived friendship quality, but more appearance dissatisfaction, more dysfunctional investment in appearance, more body image cognitive distortions, more depressive symptoms and lower self-esteem, and more disturbed eating attitudes. As predicted, FTBF was positively related to perceived friendship quality,  $r(206) = .19, p$

Table 1

*Descriptive Statistics for Main Variables*

Variable	N	Mean	SD	Range
FTBF	209	2.11	.84	3.43
NORMFAT	209	2.81	.80	4.00
ACCPOS	209	2.88	.80	3.67
BASS	209	3.48	.69	3.45
ASI-R SE	208	3.37	.57	2.58
ABCD	208	2.57	.93	3.94
EAT-26	209	2.26	.69	2.69
FQQ	208	4.29	.49	2.44
CES-D	209	1.88	.50	2.23
R-SES	209	3.19	.47	2.03

*Note.* FTBF = Fat Talk Between Friends. NORMFAT = Normative Fat Talk. ACCPOS =

Accepting/Positive Body Talk. BASS = Body Areas Satisfaction Scale. ASI-R SE =

Appearance Investment. ABCD = Assessment of Body Image Cognitive Distortions.

EAT-26 = Eating Attitudes Test – 26. FQQ = Friendship Quality Questionnaire. CES-D =

Center for Epidemiological Studies Depression Scale. R-SES = Rosenberg Self-Esteem

Scale.



$< .01$ ,  $r^2 = .04$ , body image cognitive distortions,  $r(206) = .25$ ,  $p < .001$ ,  $r^2 = .06$ , and disturbed eating attitudes,  $r(207) = .23$ ,  $p = .001$ ,  $r^2 = .05$ . Specifically, higher FTBF scores were associated with higher perceived friendship quality, more body image cognitive distortions, and more disturbed eating attitudes. Contrary to the expected outcomes, appearance evaluation, investment in appearance for self-worth, depression, and self-esteem were not significantly related to FTBF. See Table 2 for a summary of the results.

In order to test hypothesis 2, the researcher conducted two hierarchical multiple regression analyses. Hypothesis 2 stated that given the presence of dysfunctional investment (i.e., high levels of appearance investment), the relationship between FTBF and depression, and FTBF and low self-esteem should strengthen. After centering the variables, FTBF and appearance investment were entered at step 1 and the interaction term was entered at step 2.

*Depression.* In step 1, appearance investment ( $\beta = .39$ ,  $p < .001$ ,  $sr_i^2 = .14$ ) was found to be a significant predictor of depression, whereas FTBF was not found to be a significant predictor. In step 2, the interaction term, appearance investment x FTBF was not found to be a significant predictor of depression. Contrary to the expected outcome, appearance investment did not moderate the relationship between FTBF and depression (see Table 3).

*Self-Esteem.* In step 1, appearance investment ( $\beta = -.49$ ,  $p < .001$ ,  $sr_i^2 = .24$ ) was found to be a significant predictor of self-esteem, whereas FTBF was not found to be a significant predictor. In step 2, the interaction term, appearance investment x FTBF was not found to be a significant predictor of self-esteem. Contrary to the expected outcome,

Table 2

*Correlations of Perceived Friendship Quality, Appearance Evaluation, Appearance Investment, Body Image Cognitive Distortions, Depression, Self-Esteem, and Eating Attitudes with Fat Talk Between Friends (FTBF)*

Predictor Variable	Fat Talk Between Friends (FTBF)
Perceived Friendship Quality (FQQ)	.19**
Appearance Evaluation (BASS)	-.01
Appearance Investment (ASI-R SE)	.14
Assessment of Body-Image Cognitive Distortions (ABCD)	.25**
Depressive Symptoms (CES-D)	.03
Self-Esteem (R-SES)	-.01
Eating Attitudes Test (EAT-26)	.23**

*Note.* *dfs* ranged from 206 to 207.

\*  $p < .05$ . \*\*  $p < .01$ .

Table 3

*Summary of Regression Analyses for the Prediction of Depression and Self-Esteem*

Criterion	Predictors	<i>B</i> ( <i>SE</i> )	$\beta$	<i>t</i>	<i>P</i>	<i>sr</i> <sup>2</sup>
Depression						
Step 1	FTBF	-.02(.04)	-.03	-.465	.643	.00
	ASI-R SE	.34(.06)	.39	5.96	.000	.14
Step 2	FTBF X ASI-R SE	.12(.07)	.11	1.73	.086	.01
Self-Esteem						
Step 1	FTBF	.03(.03)	.06	.932	.352	.00
	ASI-R SE	-.41(.05)	-.49	-8.00	.000	.24
Step 2	FTBF X ASI-R SE	-.01(.06)	-.01	-.079	.937	.00

*Note.* FTBF = Fat Talk Between Friends. ASI-R SE = Investment in appearance for self-worth. FTBF X ASI-R SE = Interaction term.

appearance investment did not moderate the relationship between FTBF and self-esteem (see Table 3).

### **Exploratory Analyses**

Pearson correlations were conducted to determine whether normative fat talk and accepting/positive appearance-related talk were significantly related to the other variables. These analyses were not included in the study hypotheses; however, the results illuminate potentially important distinctions between normative fat talk (i.e., non-ruminative fat talk) and co-ruminative fat talk (i.e., fat talk between friends; FTBF). A summary of the correlations is provided in Table 4. The results revealed a significant, negative relationship between normative fat talk and accepting/positive appearance-related talk. Additionally, normative fat talk was significantly related to more fat talk between friends (FTBF), higher body mass index (BMI), more depressive symptoms, more eating disturbance, more appearance-related cognitive distortions, and more dysfunctional investment in appearance. Moreover, normative fat talk was associated with more negative appearance evaluation and lower self-esteem. It is important to note that normative fat talk (i.e., non-ruminative fat talk) was found to be associated with all of the outcomes variables in hypothesis 1, with the exception of perceived friendship quality.

Self-accepting/positive appearance-related talk was positively associated with self-esteem, perceived friendship quality, and appearance evaluation. Furthermore, it was found to be negatively associated with dysfunctional investment in appearance and body image cognitive distortions. An interesting finding was that self-accepting/positive talk was found to be associated with higher FTBF scores, which seems somewhat

Table 4

*Correlations of Perceived Friendship Quality, Body Image Variables, and Emotional Adjustment Variables with Normative Fat Talk and Self-Accepting/Positive Talk*

Predictor Variable	Normative Fat Talk	Self-Accepting/Positive Appearance Talk
Fat Talk Between Friends (FTBF)	.23**	.22**
Perceived Friendship Quality (FQQ)	-.11	.28**
Appearance Evaluation (BASS)	-.35**	.40**
Appearance Investment (ASI-R SE)	.27**	-.22**
Assessment of Body-Image Cognitive Distortions (ABCD)	.47**	-.28**
Depressive Symptoms (CES-D)	.31**	-.13
Self-Esteem (R-SES)	-.42**	.34**
Eating Attitudes Test (EAT-26)	.40**	-.11
Body Mass Index (BMI)	.14*	-.07

*Note.* *dfs* ranged from 204 to 207.

\*  $p < .05$ . \*\*  $p < .01$ .

counterintuitive. That is, to some extent there appears to be an overlap between self-accepting/positive appearance-related dialogue and appearance-focused, co-ruminative dialogue. See Table 4 for a summary of the correlations.

## CHAPTER IV

### DISCUSSION AND CONCLUSIONS

There is a growing body of literature pertaining to social interaction and communication within the context of same-sex friendships. Generally, research in this area has focused on the adaptive and beneficial aspects of intimate and personal disclosure, especially with respect to psychological well-being (e.g., Asher & Parker, 1989; Newcomb & Bagwell, 1995). However, researchers have posited that interpersonal communication which becomes excessively problem-focused may result in a pattern of maladaptive self-disclosure termed “co-rumination” (e.g., Rose, 2002). In body image and physical appearance research, there has been an increasing interest in negative interpersonal communication regarding one’s physical appearance termed “fat talk” (Nichter & Vuckovic, 1994). The purpose of this study was to examine the influence of a new construct which involves appearance-focused co-rumination (i.e., Fat Talk Between Friends; FTBF) on perceived friendship quality, body image, eating pathology, and emotional adjustment.

The results provide significant support for three out of the seven hypothesized relationships. The effect sizes were modest, but this is consistent with previous research on the co-rumination construct (Rose, 2002; Rose et al., 2007). As predicted, higher FTBF was significantly associated with higher perceived friendship quality. Previous research suggests that co-rumination within the context of a close same-sex friendship is related to higher perceived friendship quality (Rose, 2002; Rose et al., 2007; Starr & Davila, 2009). Therefore, based on the findings of this investigation, it can be inferred that domain-specific co-rumination (e.g., appearance-focused co-rumination or FTBF)

follows a similar pattern with respect to perceived friendship quality. Although it is possible that FTBF contributes to higher perceived friendship quality, it may be that high quality friendships provide a context in which FTBF is fostered and perpetuated. Furthermore, this finding shows that the co-rumination construct can be applied to specific topics (e.g., physical appearance), which has been an area of interest in the co-rumination literature (e.g., Starr & Davila, 2009).

As hypothesized, FTBF was positively associated with body image cognitive distortions. The ABCD, a measure of body image cognitive distortions, was designed to detect problematic cognitive errors and faulty reasoning with respect to appearance-related thought processes. In other words, these findings suggest that women who commit more cognitive errors in their thoughts about physical appearance engage in more appearance-specific co-rumination and vice versa. It may be that co-rumination, which involves excessive discussion of negative thoughts and feelings, exacerbates the tendency to make cognitive distortions. On the other hand, the presence of distorted thinking with respect to one's appearance may result in a desire to disclose these thoughts and feelings in a safe and accepting context such as a close friendship. In other words, the unique social context of a close same-sex friendship may foster an environment conducive to FTBF if either friend initiates the dialogue. Previous research suggests that disclosing negative thoughts and emotions can have a cathartic effect (Pennebaker, 1997). If this cathartic effect is frequently reinforced, as in FTBF, it may partially explain why FTBF was associated with higher perceived friendship quality.

FTBF was found to be significantly correlated with disturbed eating attitudes. This finding is especially alarming because disturbed eating attitudes have been



consistently linked with body image and other perceptual disturbances (Cash & Deagle, 1997; Garner, 2002; Stice, 2002a). Although FTBF contributes to perceived friendship quality, it appears to influence distorted thinking about one's body (i.e., ABCD) and eating pathology (i.e., EAT-26). However, the results revealed no relationship between FTBF and appearance evaluation. That is, although FTBF was related to body image cognitive distortions and disturbed eating behavior, it had a negligible relationship with one's appearance evaluation. This finding is unexpected and seems to suggest that FTBF involves a unique process that does not necessarily reflect appearance satisfaction/dissatisfaction. In previous research, appearance evaluation was shown to be a strong predictor of eating pathology (Stice, 2002b). Logically, it would make sense to assume a relationship exists between FTBF and appearance evaluation, but the present findings suggest that FTBF is unrelated to appearance evaluation, yet related to cognitive errors about appearance and disturbed eating attitudes.

Furthermore, contrary to the expected outcome, FTBF was not significantly related to investment in one's appearance for self-worth (i.e., ASI-R SE). Although appearance investment and FTBF were both significantly correlated with eating pathology, these findings suggest that FTBF may be more easily conceptualized as a complex social phenomenon, as opposed to a manifestation of dysfunctional appearance investment. The assumption was that individuals who showed more dysfunctional investment in their appearance would be more likely to engage in co-ruminative dialogue about their appearance. Despite the logic in this hypothesis, FTBF appears to be unique and independent of appearance investment and appearance evaluation. Given that FTBF seems to be associated with higher friendship quality, it may be that the investment

component can be better understood as a social investment in the co-ruminative relationship. That is, engaging in FTBF may be less related to one's personal investment in appearance and more related to one's interpersonal investment in maintaining the relationship.

Finally, it was predicted that FTBF would be significantly related to emotional adjustment. Contrary to the hypothesis, the results revealed that FTBF was not significantly related to depressive symptoms or to global self-esteem. Research on the co-rumination construct has revealed a concurrent and predictive relationship between co-rumination and emotional adjustment. Rose (2002) and Rose et al. (2007) found a significant relationship between co-rumination and depressive symptoms, such that higher levels of co-rumination predicted higher levels of depression. Co-rumination can be thought of as a social form of rumination, which has been consistently linked with depression and low self-esteem (Nolen-Hoeksema, Morrow, & Fredrickson, 1993; Nolen-Hoeksema, Parker, & Larson, 1994). It is interesting that appearance-specific co-rumination (i.e., FTBF) was essentially completely unrelated to depression and to self-esteem.

Starr and Davila (2009) postulated that co-rumination about an emotionally charged topic may increase the depressogenic effects. They found that romantic involvement (i.e., relationship experience with the opposite sex) moderated the relationship between co-rumination and depression. Based on this finding, the present study focused on appearance-specific co-rumination and examined the possibility of another moderating variable, dysfunctional appearance investment. It was hypothesized that given the presence of dysfunctional investment (i.e., high levels of appearance

investment), the relationship between FTBF and depression, and FTBF and low self-esteem should strengthen. Dysfunctional investment independently predicted depression and low self-esteem, but contrary to hypothesis 2, it did not function as a moderating variable for FTBF. Based on these unexpected findings, FTBF appears to be better understood as a complex social interaction involving obsessional cognitions about appearance and eating behaviors, as opposed to a social manifestation of personal investment in appearance for self-worth.

Given that the FTBF questionnaire involves a significant co-ruminative component, the researcher included additional items to assess for normative (i.e., non-ruminative) fat talk (Nichter & Vuckovic, 1994), which involves a similar sharing of negative, appearance-related information without the co-ruminative emphasis. Although the focus of this study was on appearance-specific co-rumination (i.e., FTBF), the results revealed that non-ruminative fat talk was related to almost all of the other variables. Britton et al. (2006) and Ousley et al. (2008) discovered that fat talk appears to be a normative process which takes place in female social circles. A few experimental studies have found “normative fat talk” to be associated with body dissatisfaction (e.g., Stice et al., 2003; Tucker et al., 2007). Additionally, a recent study (Ousley et al., 2008) found normative fat talk to be associated with body dissatisfaction and eating disorders. The present investigation was the first to examine the influence of normative fat talk within the context of a close same-sex relationship.

The results revealed that normative fat talk was associated with all of the other variables, with the exception of perceived friendship quality. That is, normative fat talk was positively correlated with dysfunctional investment in appearance, body image

cognitive distortions, eating disturbance, and depression scores, and was found to be negatively correlated with appearance evaluation and self-esteem. Although normative fat talk has been linked with negative appearance evaluation (e.g., Stice et al., 2003), the present study was the first to link normative fat talk with appearance investment, depression, and self-esteem. Stice and colleagues (2003) conducted an experimental study involving a brief, artificially induced fat talk situation between a participant and a confederate, which may explain why they failed to detect a significant mood change. It may be that normative fat talk has a stronger emotional impact when it occurs in the context of a close same-sex friendship.

As might be expected, normative fat talk (i.e., non-ruminative fat talk) was also positively associated with FTBF (i.e., co-ruminative fat talk). An interesting finding was that normative fat talk was related to appearance evaluation, appearance investment, depression, and self-esteem, whereas FTBF was not significantly related to any of these variables. Thus, although FTBF and normative fat talk are conceptually similar and statistically related, the results suggest that they are fundamentally unique constructs.

Although both FTBF and normative fat talk consist of negative, appearance-related dialogue with a close same-sex friend, FTBF involves a repetitive, problem-focused dialogue which is referred to as co-rumination. One of the most salient differences between FTBF and normative fat talk pertains to perceived friendship quality. Although FTBF and normative fat talk share many similar features, FTBF involves an intense social process consisting of mutual disclosure, which may explain why perceived friendship quality was related to FTBF, but not to normative fat talk. Research has shown that repetitive, problem-focused dialogue (i.e., co-rumination) is positively correlated

with perceived friendship quality (e.g., Rose, 2002; Rose et al., 2007; Starr & Davila, 2009). Rose (2002) posited that co-ruminative dialogues between friends can result in adjustment trade-offs, in that, these dialogues seem to be related to increased friendship quality, whereas they are also linked to negative consequences. The results of the present investigation suggest that FTBF involves similar adjustment trade-offs, whereas normative fat talk only seems to be related to negative consequences.

Given that both FTBF and normative fat talk involve negative appearance-related talk, the researcher included items to assess for self-accepting/positive appearance-related talk. Although self-accepting/positive talk was not the focus of this investigation, the results yielded interesting relationships. As might be expected, self-accepting/positive appearance-related talk between close same-sex friends was correlated with higher perceived friendship quality, higher self-esteem, more favorable appearance evaluation, less dysfunctional investment in appearance, and fewer body image cognitive distortions. It can be inferred that engaging in self-accepting/positive appearance-related talk with a close same-sex friend may serve as a protective factor with respect to body image.

Another interesting finding was that self-accepting/positive appearance-related talk was positively associated with both FTBF and normative fat talk. This finding is especially important because it suggests that there may be a common factor which underlies the tendency to engage in appearance-related talk, whether it is positive, negative, or co-ruminative. These correlations imply that individuals who engage in disparaging talk about their bodies also engage in self-accepting/positive talk. This study highlights the complexity of appearance-related talk within the context of close friendships and suggests that positive talk and negative talk are not mutually exclusive.

Although identifying the underlying factor in these relationships was beyond the scope of this investigation, it presents an interesting possibility for future research.

Perhaps the most salient finding was that FTBF appears to be a markedly distinct social process which cannot be understood as a manifestation of negative appearance evaluation, dysfunctional investment in appearance, or emotional maladjustment. FTBF or appearance-specific co-rumination involves complex, repetitive interactions between close same-sex friends. FTBF's association with cognitive distortions and disturbed eating attitudes suggests that it involves cognitive and perceptual preoccupations. In fact, many of the items on the FTBF questionnaire suggest an obsessional quality to the interaction, which implies that FTBF becomes an integral part of the friendship. However, this intensely social interaction may serve to normalize body image cognitive distortions and disturbed eating attitudes. Thus, the co-ruminative relationship may become a forum for the rehearsal and maintenance of these preoccupations. Although this is purely speculative, it may be that the unique social bond generated in FTBF paradoxically guards against body dissatisfaction and emotional maladjustment.

It may be that close same-sex friendships provide an outlet for individuals who are preoccupied with distorted appearance-related thoughts and disturbed eating attitudes to receive mutual affirmation. Furthermore, individuals who engage in FTBF may be less psychologically distressed as a result of receiving this support. Research on eating disorders, especially anorexia nervosa, supports the presence of obsessive and compulsive tendencies (e.g., Lilenfeld et al., 2000), and the FTBF questionnaire may capture the social manifestation of these tendencies. Moreover, anorexia research suggests that distorted thinking about food and eating behaviors is sometimes perceived

as ego-syntonic or part of the self. In other words, maintaining these distorted thoughts and behaviors is seen as crucial to one's self-esteem and happiness (Wilson, Becker, & Heffernan, 2003). In a similar way, FTBF may reflect an implicit, mutual commitment to maintaining these thoughts and behaviors. Furthermore, maintaining the co-ruminative dialogue may be seen as crucial to maintaining the friendship quality. Based on the findings of the present study, further investigation with respect to the relationship between FTBF and disturbed eating behavior is warranted.

### **Limitations and Implications**

This study was the first empirical investigation of appearance specific co-rumination (i.e., Fat Talk Between Friends; FTBF), and as a result, there are a number of limitations and directions for future research. In order to assess for FTBF, the researchers adapted the Co-Rumination Questionnaire (Rose, 2002) to account for body image and appearance-related problems. Although the adapted questionnaire was internally consistent, the high internal consistency (.97) suggests that many of the items were redundant. Perhaps future researchers should attempt to modify this questionnaire to reduce the number of items. Nevertheless, the results suggest that the FTBF questionnaire is a viable measure for assessing appearance-specific co-rumination.

It is important to note that although the mean for FTBF ( $M = 2.11$ ,  $SD = .84$ ) is somewhat low on the scale, it is similar to the mean co-rumination score ( $M = 2.66$ ,  $SD = .82$ ) reported by Rose and colleagues (2007). Conceptually, it makes sense that FTBF, a more specific form of co-rumination, would occur less frequently than the general type of co-rumination described in previous research. Nevertheless, it should be noted that restricted range with respect to FTBF may have impacted the results and strength of the

correlations. It may be that co-ruminative behaviors occur less frequently in adulthood as compared to adolescence. This may explain why Rose and colleagues found higher levels of co-rumination in their sample of adolescents.

In addition to utilizing a new instrument to measure a new construct, the investigation was limited by the self-report nature of the questionnaires. Several of the questionnaires required participants to respond to items pertaining to their relationship with their best or closest female friend. The items regarding FTBF and friendship quality were based upon one friends' perception of the relationship, which significantly limits the findings. It would have been preferable to have both friends complete the questionnaires, as this would have provided validation with respect to the respondents' perception of the relationship. Although this procedure would be more difficult and time consuming, future researchers should consider collecting data from both friends in order to ensure more accurate data.

Previous researchers (e.g., Rose et al., 2007) have collected data at multiple time points in order to assess for the influence of co-rumination over time. Although it was outside the scope of the present study, future researchers should attempt to collect data at multiple time points to determine if a causal relationship exists between FTBF and the other variables. Rose and colleagues (2007) found a significant difference between observation periods and concluded that co-rumination predicted increased depressive and anxiety symptoms and increased positive friendship quality over time. Ideally, researchers should attempt to collect self-report data from both friends at multiple time points.



In addition to modifying the questionnaires and collecting data at multiple time points, future research should target different age groups. Previous research has established that fat talk occurs across age groups (e.g., Britton et al., 2006; Nichter & Vuckovic, 1994; Ousley et al., 2008); however, a majority of the research on co-rumination has targeted teenagers and children (e.g., Rose, 2002; Rose et al., 2007). Byrd-Craven and colleagues (2008) conducted the first study examining co-rumination among adults. Although it has been established that co-rumination takes place among adults, it may be more likely to influence adolescents (e.g., Rose, 2002). Future research on FTBF should compare adolescents to adults.

Although the focus of this study was on negative appearance-related talk, the results revealed significant relationships between FTBF, normative fat talk, and self-accepting/positive appearance-related talk. More research should be conducted to identify the potential underlying factor which may explain these relationships. It seems counterintuitive for negative and positive appearance-related talk to be positively correlated, but it may reflect an underlying tendency to discuss one's appearance in an interpersonal context, whereas some individuals may be less likely to discuss this subject. Given the importance of physical appearance in our society, it may be that close friendships provide a safe context to disclose mixed feelings related to appearance.

The results of this study highlight the importance of investigating appearance-related talk within the context of close friendships. The researcher introduced a new construct (i.e., FTBF), which is essentially a combination of "co-rumination" and "normative fat talk." Perhaps one of the most interesting findings was that FTBF appears to have adjustment trade-offs. That is, although FTBF was related to higher levels of

body image cognitive distortions and to disturbed eating attitudes, it was also related to higher perceived friendship quality. FTBF involves a unique social process that warrants more detailed investigation, especially since there are significant implications for mental health. The findings suggest that FTBF is a complex social phenomenon which consists of cognitive and perceptual distortions related to body image and eating behavior. Given the salience of the cognitive and perceptual disturbances, it may be that cognitive-behavioral therapy could be utilized to ameliorate the negative consequences of FTBF.

Even though FTBF was not significantly related to body image evaluation or emotional adjustment, it was significantly related to cognitive distortions and eating disturbance. According to cognitive behavioral theory, ruminating about negative feelings and making cognitive distortions can result in emotional maladjustment (Ledley, Marx, & Heimberg, 2005; Nolen-Hoeksema, Morrow, & Fredrickson, 1993; Nolen-Hoeksema, Parker, & Larson, 1994). Therefore, FTBF, which can be thought of as “reciprocal rumination,” may result in negative emotional consequences over time. On the other hand, it is important to note that FTBF seems to have some positive consequences with respect to perceived friendship quality. Given these positive consequences, persons engaging in FTBF may be resistant to abandoning this potentially maladaptive communication pattern. In conclusion, these findings provide preliminary evidence for the FTBF construct and present many directions for future research.

## REFERENCES

- Adler, A. (1964). *Social interest: A challenge to mankind*. New York: Capricorn.
- Adler, A. (1994). Socialist influences on Adlerian psychology. *Individual Psychology*, 50, 131-141.
- Asher, S. R., & Parker, J. G. (1989). The significance of peer relationship problems in childhood. In B. H. Schneider, G. Attili, J. Nadel, & R. P. Weissberg (Eds.), *Social competence in developmental perspective* (pp. 5-23). Amsterdam: Kluwer Academic.
- Ballard, R. (1992). Short forms of the Marlowe-Crowne Social Desirability Scale. *Psychological Reports*, 71, 1155-1160.
- Benenson, J. E., Apostoleris, N. H., & Parnass, J. (1997). Age and sex differences in dyadic and group interaction. *Developmental Psychology*, 33, 538-543.
- Brendgen, M., Vitaro, F., & Bukowski, W. M. (2000). Deviant friends and early adolescents' emotional and behavioral adjustment. *Journal of Research on Adolescence*, 10, 173-189.
- Britton, L. E., Martz, D. M., Bazzini, D. G., Curtin, L. A., & LeaShomb, A. (2006). Fat talk and self-presentation of body image: Is there a social norm for women to self-degrade? *Body Image: An International Journal of Research*, 3, 247-254.
- Buhrmester, D., & Furman, W. (1987). The development of companionship and intimacy. *Child Development*, 58, 1101-1113.
- Bukowski, W. M., & Adams, R. (2005). Peer relationships and psychopathology: Markers, moderators, mediators, mechanisms, and meanings. *Journal of Clinical Child and Adolescent Psychology*, 34, 3-10.

- Bukowski, W. M., Hoza, B., & Boivin, M. (1994). Measuring friendship quality during pre and early adolescence. *Journal of Social and Personal Relationships*, 11, 471-484.
- Byrd-Craven, J., Geary, D. C., Rose, A. J., & Ponzi, D. (2008). Co-ruminating increases stress hormone levels in women. *Hormones and Behavior*, 53, 489-492.
- Camarena, P. M., Sarigiani, P. A., & Peterson, A. C. (1990). Gender-specific pathways to intimacy in early adolescence. *Journal of Youth and Adolescence*, 19, 19-32.
- Cash, T. F. (2002). Cognitive-behavioral perspectives on body image. In T. F. Cash, & T. Pruzinsky (Eds.), *Body image: A handbook of theory, research, and clinical practice* (pp. 38-46). New York: Guilford Press.
- Cash, T. F. (1997). *The body image workbook*. Oakland, CA : New Harbinger.
- Cash, T. F. (2000). *The Multidimensional Body Self-Relations Questionnaire user's manual*. Available from the author's website at [www.body-images.com](http://www.body-images.com).
- Cash, T. F., & Deagle III, E. A. (1997). The nature and extent of body image disturbances in anorexia nervosa and bulimia nervosa: A meta-analysis. *International Journal of Eating Disorders*, 22, 107-125.
- Cash, T. F., & Henry, P. E. (1995). Women's body images: The results of a national survey in the U.S.A. *Sex Roles*, 33, 19-28.
- Cash, T. F., & Strachan, M. D. (1999). Body images, eating disorders, and beyond. In *Eating disorders: A reference sourcebook* (pp. 27-36). Phoenix: Oryx Press.
- Cash, T. F., Melnyk, S. E., & Hrabosky, J. I. (2004). The assessment of body image investment: An extensive revision of the Appearance Schemas Inventory. *International Journal of Eating Disorders*, 35, 305-316.

- Cohen, J. (1992). Quantitative methods in psychology: A power primer. *Psychological Bulletin*, 112, 155-159.
- Cohen, J., & Davis, R. G. (1991). Third-person effects and the differential impact in negative political advertising. *Journalism Quarterly*, 68, 680-688.
- Cole, D. A., Martin, J. M., Peeke, L. A., Seroczynski, A. D., & Fier, J. (1999). Children's over and underestimation of academic competence: A longitudinal study of gender differences, depression, and anxiety. *Child Development*, 70, 459-473.
- Craig, A. B., Martz, D. M., & Bazzini, D. G. (2007). Peer pressure to “fat talk”: Does audience type influence how women portray their body image? *Eating Behaviors*, 8, 244-250.
- Crowne, D. P., & Marlowe, D. (1960). A new scale of social desirability independent of psychopathology. *Journal of Consulting Psychology*, 24, 349-354.
- Davidson, W. P. (1983). The third person effect in communication. *Public Opinion Quarterly*, 47, 1-15.
- DeForest, C., & Stone, G. (1980). Effects of sex and intimacy level on self-disclosure. *Journal of Counseling Psychology*, 27, 93-96.
- Dindia, K., & Allen, M. (1992). Sex differences in self-disclosure: A meta-analysis. *Psychological Bulletin*, 112, 106-124.
- Eagly, A. H. (1987). *Sex differences in social behavior: A social-role interpretation*. Hillsdale, NJ: Lawrence Erlbaum.
- Feingold, A., & Mazzella, R. (1998). Gender differences in body image are increasing. *Psychological Science*, 9, 190-195.

Field, A. E., Camargo, C. A., Taylor, C. B., Berkey, C. S., Roberts, S. B., & Colditz, G.

A. (2001). Peer, parent, and media influences on the development of weight concerns and frequent dieting among preadolescent and adolescent girls and boys. *Pediatrics*, 107, 54-60.

Fischer, D. G., & Fick, C. (1993). Measuring social desirability: Short forms of the Marlowe-Crowne Social Desirability Scale. *Educational and Psychological Measurement*, 53, 417-424.

Garner, D. M. (2002). Body image and anorexia nervosa. In T. F. Cash & T. Pruzinsky (Eds.), *Body image: A handbook of theory, research, and clinical practice* (pp. 295–303). New York: Guilford Press.

Garner, D. M., Garfinkel, P. E., Schwartz, D., & Thompson, M. (1980). Cultural expectations of thinness in women. *Psychological Reports*, 47, 483-491.

Garner, D., Olmsted, M., Bohr, H., & Garfinkel, P. (1982). The Eating Attitudes Test: Psychometric and clinical correlations. *Psychological Medicine*, 12, 871-878.

Giovannelli, T. S., Cash, T. F., Henson, J. M., & Engle, E. K. (2008). The measurement of body image satisfaction-dissatisfaction: Is rating importance important? *Body Image*, 5, 216-223.

Groesz, L. M., Levine, M. P., & Murnen, S. K. (2002). The effect of experimental presentation of thin media images on body satisfaction: A meta-analytic review. *International Journal of Eating Disorders*, 31, 1-16.

Gunther, A. G., & Thorson, E. (1992). Perceived Persuasive effects of product commercials and public service announcements: Third-person effects in new domains. *Communication Research*, 19, 574-596.

- Hope, C. (1980). American beauty rituals. In R. B. Browne (Ed.), *Rituals and ceremonies in popular culture* (pp. 226-237). Bowling Green, OH: Bowling Green University Press.
- Jakatdar, T. A., Cash, T. F., & Engle, E. K. (2006). Body-image thought processes: The development and initial validation of the Assessment of Body Image Cognitive Distortions. *Body Image*, 3, 325-333.
- Janoff-Bulman, R., & Wade, M. B. (1996). The dilemma of self-advocacy for women: Another case of blaming the victim? *Journal of Social and Clinical Psychology*, 15, 143-152.
- Kaplan, H. B., & Pokorny, A. D. (1969). Self-derogation and psychosocial adjustment. *The Journal of Nervous and Mental Disease*, 149, 421-434.
- Knickmeyer, K., Sexton, K., & Nishimura, N. (2002). The impact of same-sex friendships on the well-being of women: A review of the literature. *Women & Therapy*, 25, 37-59.
- Ladd, G. W. (1983). Social networks of popular, average, and rejected children in school settings. *Merrill-Palmer Quarterly*, 29, 283-307.
- Ledley, D. R., Marx, B. P., & Heimberg, R. G. (2005). *Making cognitive-behavioral therapy work: Clinical process for new practitioners*. New York: The Guilford Press.
- Lilenfeld, L. R., Stein, D., Bulik, C. M., Strober, M., Plotnicov, K. H., Pollice, C., Rao, R., Nagy, L., & Kaye, W. H. (2000). Personality traits among currently eating disordered, recovered, and never ill first-degree female relatives of bulimic and control women. *Psychological Medicine*, 30, 1399-1410.

- Loo, R., & Thorpe, K. (2000). Confirmatory factor analyses of the full and short versions of the Marlowe-Crowne Social Desirability Scale. *Journal of Social Psychology, 140*, 628-635.
- Miller, L. C., Cooke, L. L., Tsang, J., & Morgan, F. (1992). Should I brag? Nature and impact of positive and boastful disclosures for women and men. *Human Communication Research, 18*, 364-399.
- Moller, L. C., Hymel, S., & Rubin, K. H. (1992). Sex typing in play and popularity in middle childhood. *Sex Roles, 26*, 331-353.
- Newcomb, A. F., & Bagwell, C. L. (1995). Children's friendship relations: A meta-analytic review. *Psychological Bulletin, 117*, 306-347.
- Nichter, M. (2000). *Fat talk*. Cambridge, MA: Harvard University Press.
- Nichter, M., & Vuckovic, N. (1994). Fat talk: Body image among adolescent females. In N. L. Sault (Ed.), *Many mirrors: Body image and social relations* (pp. 109-131). New Brunswick, NJ: Rutgers University Press.
- Nolen-Hoeksema, S., Morrow, J., & Fredrickson, B. L. (1993). Response styles and the duration of episodes of depressed mood. *Journal of Abnormal Psychology, 102*, 20-28.
- Nolen-Hoeksema, S., Parker, L. E., & Larson, J. (1994). Ruminative coping with depressed mood following loss. *Journal of Personality and Social Psychology, 67*, 92-104.
- O'Dea, J. A. (1995). Body image and nutritional status among adolescents and adults: A review of the literature. *Australian Journal of Nutrition and Dietetics, 52*, 56-68.



- Ousley, L. B. (1986). Differences among bulimic subgroups, binge eaters, and normal eaters in a female college population. *Dissertation Abstracts International*, 47(5-B), 2178.
- Ousley, L., Cordero, E. D., & White, S. (2008). Fat talk among college students: How undergraduates communicate regarding food and body weight, shape and appearance. *Eating Disorders*, 16, 73-84.
- Parker, J. G., & Asher, S. R. (1993). Friendship and friendship quality in middle childhood: Links with peer group acceptance and feelings of loneliness and social dissatisfaction. *Developmental Psychology*, 29, 611-621.
- Parker, J. G., Low, C. M., Walker, A. R., & Gamm, B. K. (2005). Friendship jealousy in young adolescents: Individual differences and links to sex, self-esteem, aggression, and social adjustment. *Developmental Psychology*, 41, 235-250.
- Pennebaker, J. W. (1997). Writing about emotional experiences as a therapeutic process. *Psychological Science*, 8, 162-166.
- Peterson, A. C., Sarigiani, P. A., & Kennedy, R. E. (1990). Adolescent depression: Why more girls? *Journal of Youth and Adolescence*, 20, 247-271.
- Radloff, L. S. (1977). The CES-D scale: A self-report depression scale for research in the general population. *Applied Psychological Measurement*, 1, 385-401.
- Raeshide, M., & Kern, R. (1991). Social interest: The haves and the have nots. *Individual Psychology*, 47, 464-475.
- Reynolds, C. R., & Richmond, B. O. (1978). What I Think and What I Feel: A revised measure of children's manifest anxiety. *Journal of Abnormal Child Psychology*, 6, 271-284.

- Reynolds, W. M. (1982). Development of reliable and valid short forms of the Marlowe-Crowne Social Desirability Scale. *Journal of Clinical Psychology, 38*, 119-125.
- Rodin, J., Silberstein, L. R., & Striegel-Moore, R. H. (1985). Women and weight: A normative discontent. In T. B. Sonderegger (Ed.), *Psychology and gender* (Vol. 32, pp. 267-307). Lincoln: University of Nebraska Press.
- Rose, A. J. (2002). Co-rumination in the friendships of girls and boys. *Child Development, 73*, 1830-1843.
- Rose, A. J., & Asher, S. R. (1999). Children's goals and strategies in response to conflicts within a friendship. *Developmental Psychology, 35*, 69-79.
- Rose, A. J., Carlson, W., & Waller, E. M. (2007). Prospective associations of co-rumination with friendship and emotional adjustment: Considering the socioemotional trade-offs of co-rumination. *Developmental Psychology, 43*, 1019-1031.
- Rose, A. J., Schwartz, R. A., & Carlson, W. (2005). An observational assessment of co-rumination in the friendships of girls and boys. Paper presented at the Society for Research in Child Development. Atlanta, GA.
- Rosenberg, M. (1965). *Society and the adolescent self-image*. Princeton, NJ: Princeton University Press.
- Rudiger, J. A., Cash, T. F., Roehrig, M., & Thompson, J. K. (2007). Day-to-day body image states: Prospective predictors of intra-individual level and variability. *Body Image, 4*, 1-9.

- Rusticus, S. A., Hubley, A. M., & Zumbo, B. D. (2004). *Cross-national comparability of the Rosenberg Self-Esteem Scale*. Poster presented at the 112th convention of the American Psychological Association. Honolulu, Hawaii.
- Silbert, E., & Tippet, J. (1965). Self-esteem: Clinical assessment and measurement validation. *Psychological Reports, 16*, 1017-1071.
- Starr, L. R., & Davila, J. (2009). Clarifying co-rumination: Associations with internalizing symptoms and romantic involvement among adolescent girls. *Journal of Adolescence, 32*, 19-37.
- Stice, E. (2002a). Body image and bulimia nervosa. In T. F. Cash & T. Pruzinsky (Eds.), *Body image: A handbook of theory, research, and clinical practice* (pp. 304–311). New York: Guilford Press.
- Stice, E. (2002b). Risk and maintenance factors for eating pathology: A meta-analytic review. *Psychological Bulletin, 128*, 825-848.
- Stice, E., Maxfield, J., & Wells, T. (2003). Adverse effects of social pressure to be thin on young women: An experimental investigation of the effects of fat talk. *International Journal of Eating Disorders, 34*, 108-117.
- Tabachnick, B. G., & Fidell, L. S. (2001). *Computer-assisted research design and analysis*. Boston: Allyn and Bacon.
- Tannen, D. (1990). *You just don't understand: Women and men in conversation*. New York: Ballentine Books.
- Thorne, B. (1986). Girls and boys together...but mostly apart: Gender arrangements in elementary schools. In W. W. Hartup, & Z. Rubin (Eds.), *Relationships and development* (pp. 167-184). Hillsdale, NJ: Erlbaum.

- Tucker, K. L., Martz, D. M., Curtin, L. A., & Bazzini, D. G. (2007). Examining “fat talk” experimentally in a female dyad: How are women influenced by another woman’s body presentation style? *Body Image*, 4, 157-164.
- Wichstrom, L. (1999). The emergence of gender difference in depressed mood during adolescence: The role of intensified gender socialization. *Developmental Psychology*, 35, 232-245.
- Wilson, G. T., Becker, C. B., Heffernan, K. (2003). Eating disorders. In E. J. Mash, & R. A. Barkley (Eds.), *Child Psychopathology* (pp. 687-715). New York, NY: The Guilford Press.

## APPENDIX A

### FAT TALK BETWEEN FRIENDS QUESTIONNAIRE (FTBF)

PLEASE READ INSTRUCTIONS CAREFULLY: THINK OF YOUR BEST OR CLOSEST FEMALE FRIEND AND RESPOND TO THE FOLLOWING ITEMS.

1. How long have you known this person?  
       \_\_\_\_\_ Years    \_\_\_\_\_ Months

2. How often do you spend time with this person?

Never	Sometimes	Usually	Frequently	Very Frequently
1	2	3	4	5

#### Normative Fat Talk Items

3. Imagine you and your best or closest female friend saying *negative* things about your bodies (For example, “My butt is fat” or “I don’t like my hair”). How often would this occur between you and your friend?

Never	Sometimes	Usually	Frequently	Very Frequently
1	2	3	4	5

4. How often do you say negative things about your physical appearance in front of your friend?

Never	Sometimes	Usually	Frequently	Very Frequently
1	2	3	4	5

5. How often does your friend say negative things about her physical appearance in front of you?

Never	Sometimes	Usually	Frequently	Very Frequently
1	2	3	4	5

#### Self-Accepting Body Talk Items

6. Imagine you and your best or closest female friend saying *self-accepting* things about your bodies (For example, “I feel okay about my body”). How often would this occur between you and your friend?

Never	Sometimes	Usually	Frequently	Very Frequently
1	2	3	4	5

7. How often do you say self-accepting things about your physical appearance in front of your friend?

Never	Sometimes	Usually	Frequently	Very Frequently
1	2	3	4	5

8. How often does your friend say self-accepting things about her physical appearance in front of you?

Never	Sometimes	Usually	Frequently	Very Frequently
1	2	3	4	5

### Positive Body Talk Items

9. Imagine you and your best or closest female friend saying *positive* things about your bodies (For example, "I really like my body"). How often would this occur between you and your friend?

Never	Sometimes	Usually	Frequently	Very Frequently
1	2	3	4	5

10. How often do you say *positive* things about your physical appearance in front of your friend?

Never	Sometimes	Usually	Frequently	Very Frequently
1	2	3	4	5

11. How often does your friend say *positive* things about her physical appearance in front of you?

Never	Sometimes	Usually	Frequently	Very Frequently
1	2	3	4	5

### Fat Talk Between Friends (FTBF) Items (Appearance-Specific Co-rumination)

PLEASE READ INSTRUCTIONS CAREFULLY. Think about the way you usually are with your best or closest female friend and circle the number for each of the following statements that best describes you. In the statements below, "problems related to physical appearance" refers to unhappiness or dissatisfaction with one's body (e.g., weight/shape, hair, face, legs, arms, etc.).

1	2	3	4	5
Not At All True	A Little True	Somewhat True	Mostly True	Really True

1. We spend time together talking about problems related to our physical appearances or dieting/exercising behaviors.
2. If one of us expresses a problem related to physical appearance or dieting/exercising behaviors, we will talk about the problem rather than talking about something else or doing something else.
3. After my friend tells me about her problems related to her physical appearance or dieting/exercising behaviors, I always try to get my friend to talk more about it later.
4. When I have a problem with my physical appearance or dieting/exercising behaviors, my friend always tries really hard to keep me talking about it.
5. When one of us has a problem related to physical appearance or dieting/exercising behaviors, we talk to each other about it for a long time.
6. When we see each other, if one of us has a problem related to physical appearance or dieting/exercising behaviors, we will talk about the problem even if we had planned to do something else together.
7. When my friend has a problem related to her physical appearance or dieting/exercising behaviors, I always try to get my friend to tell me every detail about it.
8. After I've told my friend about a problem related to my physical appearance or dieting/exercising behaviors, my friend always tries to get me to talk more about it later.
9. We talk about problems related to our physical appearances or dieting/exercising behaviors almost every time we see each other.
10. If one of us has a problem related to physical appearance or dieting/exercising behaviors, we will spend our time together talking about it, no matter what else we could do instead.
11. When my friend has a problem or is dissatisfied with respect to her physical appearance or dieting/exercising behaviors, I always try really hard to keep my friend talking about it.
12. When I have a problem related to my physical appearance or dieting/exercising behaviors, my friend always tries to get me to tell every detail about it.

*When we talk about a problem related to physical appearance or dieting/exercising behaviors....*

1	2	3	4	5
Not At All True	A Little True	Somewhat True	Mostly True	Really True

1. ... we will keep talking even after we both know all of the details about it.
2. ... we talk for a long time trying to figure out all of the different reasons for the problem.
3. ... we try to figure out the bad things that might happen because of the problem.
4. ... we spend a lot of time trying to figure out parts of the problem that we can't understand.
5. ... we talk a lot about how bad the person with the problem feels.
6. ... we'll talk about every part of the problem over and over.
7. ... we talk a lot about the problem in order to understand why it happened.
8. ... we talk a lot about all of the different bad things that might happen because of the problem.
9. ... we talk a lot about parts of the problem that don't make sense to us.
10. ... we talk for a long time about how upset it has made one of us with the problem.
11. ... we usually talk about that problem every day even if nothing new has happened.
12. ... we talk about all of the reasons why the problem might have happened.
13. ... we spend a lot of time talking about what bad things are going to happen because of the problem.
14. ... we try to figure out everything about the problem, even if there are parts that we may never understand.
15. ... we spend a long time talking about how sad or mad the person with the problem feels.



## APPENDIX B

### FRIENDSHIP QUALITY QUESTIONNAIRE – SHORT FORM

PLEASE FOLLOW THE INSTRUCTIONS CAREFULLY. RESPOND TO THESE STATEMENTS ABOUT YOUR RELATIONSHIP WITH YOUR BEST OR CLOSEST FEMALE FRIEND.

1	2	3	4	5
Not At All True	A Little True	Somewhat True	Pretty True	Really True

1. My best friend and I get mad at each other a lot.
2. If my best friend had to move away, I would miss her.
3. My best friend and I tell each other that we're good at things.
4. My best friend and I make each other feel important and special.
5. I feel happy when I'm with my best friend.
6. When we have free time, my best friend and I are always together.
7. If my best friend and I get mad at each other, we always talk about how to get over it.
8. I think about my best friend even when she is not around.
9. My best friend and I talk about the things that make us sad.
10. My best friend and I make each other feel good about ideas that my best friend or I have.
11. My best friend accepts me no matter what I do.
12. My best friend and I do fun things together a lot.
13. My best friend and I argue a lot.
14. My best friend and I go to each other's houses after school/work and on weekends.
15. My best friend understands what I'm really like.
16. When my best friend or I are having trouble figuring out something, we usually ask each other for help and advice.
17. When my best friend and I are mad about something that has happened to us, we can always talk to each other about it.
18. My best friend is important to me.
19. My best friend and I always make up easily when we have a fight.
20. My best friend and I fight.
21. My best friend and I often help each other with things so we can get done quicker.
22. I am satisfied with my relationship with my best friend.
23. My best friend and I always get over our arguments really quickly.
24. My best friend and I always count on each other for ideas on how to get things done.
25. I can think of lots of secrets my best friend and I have told each other.

## APPENDIX C

### BODY AREAS SATISFACTION SCALE (BASS)

Use this 1 to 5 scale to indicate how dissatisfied or satisfied you are with each of the following areas or aspects of your body:

1	2	3	4	5
Very Dissatisfied	Mostly Dissatisfied	Neither Satisfied Nor Dissatisfied	Mostly Satisfied	Very Satisfied

- \_\_\_\_\_ 1. Face (facial features, complexion)
- \_\_\_\_\_ 2. Hair (color, thickness, texture)
- \_\_\_\_\_ 3. Lower torso (buttocks, hips, thighs, legs)
- \_\_\_\_\_ 4. Mid torso (waist, stomach)
- \_\_\_\_\_ 5. Upper torso (chest or breasts, shoulders, arms)
- \_\_\_\_\_ 6. Muscle tone
- \_\_\_\_\_ 7. Weight
- \_\_\_\_\_ 8. Height
- \_\_\_\_\_ 9. Overall appearance

## APPENDIX D

### APPEARANCE SCHEMAS INVENTORY – REVISED (ASI-R)

The statements below are beliefs that people may or may not have about their physical appearance and the influence of appearance on life. Decide the extent to which you personally *disagree or agree* with each statement and enter a number from 1 to 5. There are no right or wrong answers. Just be truthful about your personal beliefs.

1	2	3	4	5
Strongly Disagree	Mostly Disagree	Neither Agree Nor Disagree	Mostly Agree	Strongly Agree

1. I spend little time on my physical appearance.
2. When I see good-looking people, I wonder about how my own looks measure up.
3. I try to be as physically attractive as I can be.
4. I have never paid much attention to what I look like.
5. I seldom compare my appearance to that of other people I see.
6. I often check my appearance in a mirror just to make sure I look okay.
7. When something makes me feel good or bad about my looks, I tend to dwell on it.
8. If I like how I look on a given day, it's easy to feel happy about other things.
9. If somebody had a negative reaction to what I look like, it wouldn't bother me.
10. When it comes to my physical appearance, I have high standards.
11. My physical appearance has had little influence on my life.
12. Dressing well is not a priority for me.
13. When I meet people for the first time, I wonder what they think about how I look.
14. In my everyday life, lots of things happen that make me think about what I look like.
15. If I dislike how I look on a given day, it's hard to feel happy about other things.
16. I fantasize about what it would be like to be better looking than I am.
17. Before going out, I make sure that I look as good as I possibly can.
18. What I look like is an important part of who I am.
19. By controlling my appearance, I can control many of the social and emotional events in my life.
20. My appearance is responsible for much of what's happened to me in my life.

## APPENDIX E

### ASSESSMENT OF BODY IMAGE COGNITIVE DISTORTIONS (ABCD)

We all talk to ourselves in our private thoughts. We have mental conversations with ourselves. These private “conversations” are often automatic, and they even occur without our being fully aware of them. They are thoughts about ourselves, and about our interpretation of the events that are happening in our lives.

The purpose of this questionnaire is to ask you to become aware of your own mental conversations. We particularly want to focus on your mental conversations about your physical appearance. Each question will present a hypothetical situation and a mental conversation that some people might have in that situation. Please imagine yourself in each situation. Read the thought pattern that is described. Then decide how characteristic that thought pattern would be of your mental conversation in that situation. There are no right or wrong answers.

Please use the following response scale to indicate your answers:

0 = Not at all like me

1 = Slightly like me

2 = Moderately like me

3 = Mostly like me

4 = Exactly like me

How characteristic is each thought pattern of your thinking?

1	2	3	4	5
Not at all like me	Slightly like me	Moderately like me	Mostly like me	Exactly like me

1. Imagine that you weighed a few more pounds than your ideal weight. Would you think, “Until I lose these few pounds, I look really fat”?
2. Imagine that you’re out of town at a semi-formal event and you realize that the outfit you packed doesn’t go together as well as you’d like. Would you think, “This looks terrible; my appearance is ruined in this outfit”?

3. Imagine that you're trying on new swimsuits you've seen in newspaper ads. Would you think, "This suit doesn't look nearly as good on me as it does on the model in the ad"?
4. Imagine that you're watching TV and on the commercials there are attractive people of your gender. Would you compare your looks to theirs and think that you really don't look very good?
5. Imagine that you go to the gym or an exercise class, or to the beach or pool. There are some "perfect bodies" there. Would you compare your body to theirs and think that these people make you look bad?
6. Imagine someone comments favorably on your appearance. Would you then have thoughts about aspects of your appearance that you think would never be complimented?
7. Imagine that you're looking at a nude body in the mirror. Would you focus on your "flaws" more than you would your physical assets?
8. Imagine that you're wearing a new outfit and no one comments on it. Would you assume that people think the outfit doesn't look good on you?
9. Imagine that your lover shows little interest in making love with you for a few weeks. Would you think that the reason for the disinterest is because your partner thinks you're physically unappealing in some way?
10. Imagine that you get a different haircut and no one comments on it. Would you assume that people probably don't like it?
11. Imagine that you've moved to a different area and are interested in meeting new friends. Would you have thoughts that your physical appearance could lead people to reject you as a possible friend?
12. Imagine that you're invited to a party on the beach. Would you think that something about your appearance you probably won't fit in or enjoy participating?
13. Imagine that you're single, go to a party, and meet someone you find attractive. This person leaves with another nice-looking person at the end of the night. Would you think, "My looks probably weren't good enough"?
14. Imagine that you want to go work out at the gym. Would you think that you need to look more fit before you can go work out in front of others?
15. Imagine that you had a large meal and feel overly full. Would your feeling full make you think that you're fat?

16. Imagine that you begin to think about one of your physical characteristics that you dislike. Would your thoughts then turn to other physical characteristics with which you're dissatisfied?
17. Imagine that you have a new haircut and aren't particularly happy about how it looks. Would you then have critical thoughts about other aspects of your appearance, as well?
18. Imagine that some neighbors drop by unexpectedly and you not yet worked on your appearance for the day. Would you think, "I can't answer the door and let them see me like this"?

## APPENDIX F

### EATING ATTITUDES TEST (EAT-26)

1	2	3	4	5	6
Never	Rarely	Sometimes	Often	Usually	Always

*Please use the rating scale to indicate how often you have these thoughts or engage in these behaviors.*

1. Am terrified about being overweight.
2. Avoid eating when I am hungry.
3. Find myself preoccupied with food.
4. Have gone on eating binges where I feel that I may not be able to stop.
5. Cut my food into small pieces.
6. Aware of the calorie content of foods that I eat.
7. Particularly avoid food with high carbohydrate content (i.e., bread, rice, potatoes, etc.)
8. Feel that others would prefer if I ate more.
9. Vomit after I have eaten.
10. Feel extremely guilty after eating.
11. Am preoccupied with a desire to be thinner.
12. Think about burning up calories when I exercise.
13. Other people think that I am too thin.
14. Am preoccupied with the thought of having fat on my body.
15. Take longer than others to eat my meals.
16. Avoid foods with sugar in them.
17. Eat diet foods.
18. Feel that food controls my life.
19. Display self-control around food.
20. Feel that others pressure me to eat.
21. Give too much time and thought to food.
22. Feel uncomfortable after eating sweets.
23. Engage in dieting behavior.
24. Like my stomach to be empty.
25. Enjoy trying new rich foods.
26. Have the impulse to vomit after meals.

## APPENDIX G

### CENTER FOR EPIDEMIOLOGIC STUDIES DEPRESSION SCALE (CES-D)

Circle the number of each statement which best describes how often you felt or behaved this way *DURING THE PAST SIX MONTHS.*

1	2	3	4
Rarely or none of the time	Some or a little of the time	Occasionally or a moderate amount of the time	Most or all of the time

*During the past six months:*

- 1) I was bothered by things that usually don't bother me
- 2) I did not feel like eating; my appetite was poor
- 3) I felt that I could not shake off the blues even with help from my family and friends
- 4) I felt that I was just as good as other people
- 5) I had trouble keeping my mind on what I was doing
- 6) I felt depressed
- 7) I felt that everything I did was an effort
- 8) I felt hopeful about the future
- 9) I thought my life had been a failure
- 10) I felt fearful
- 11) My sleep was restless
- 12) I was happy
- 13) I talked less than usual
- 14) I felt lonely
- 15) People were unfriendly
- 16) I enjoyed life
- 17) I had crying spells
- 18) I felt sad
- 19) I felt that people disliked me
- 20) I could not get "going"



## APPENDIX H

### ROSENBERG SELF-ESTEEM SCALE (R-SES)

Instructions: Below is a list of statements dealing with your general feelings about yourself. Rate each statement using the scale below:

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

1. On the whole, I am satisfied with myself.
2. At times, I think I am no good at all.
3. I feel that I have a number of good qualities.
4. I am able to do things as well as most other people.
5. I feel I do not have much to be proud of.
6. I certainly feel useless at times.
7. I feel that I'm a person of worth, at least on an equal plane with others
8. I wish I could have more respect for myself.
9. All in all, I am inclined to feel that I am a failure.
10. I take a positive attitude toward myself.

## APPENDIX I

### MARLOWE-CROWNE SOCIAL DESIRABILITY SCALE (MC-SDS)

Listed below are a number of statements concerning personal attitudes and traits. Read each item and decide whether the statement is *True* or *False* as it pertains to you personally.

1. Before voting I thoroughly investigate the qualifications of all the candidates.
2. I never hesitate to go out of my way to help someone in trouble.
3. It is sometimes hard for me to go on with my work, if I am not encouraged.
4. I have never intensely disliked anyone.
5. On occasion I have had doubts about my ability to succeed in life.
6. I sometimes feel resentful when I don't get my way.
7. I am always careful about my manner of dress.
8. My table manners at home are as good as when I eat out in a restaurant.
9. If I could get into a movie without paying and be sure I was not seen, I would probably do it.
10. On a few occasions, I have given up doing something because I thought too little of my ability.
11. I like to gossip at times.
12. There have been times when I felt like rebelling against people in authority even though I knew they were right.
13. No matter who I'm talking to, I'm always a good listener.
14. I can remember "playing sick" to get out of something.
15. There have been occasions when I took advantage of someone.
16. I'm always willing to admit it when I make a mistake.
17. I always try to practice what I preach.
18. I don't find it particularly difficult to get along with loud-mouthed, obnoxious people.
19. I sometimes try to get even rather than forgive and forget.
20. When I don't know something I don't at all mind admitting it.
21. I am always courteous, even to people who are disagreeable.
22. At times I have really insisted on having things my own way.
23. There have been occasions when I felt like smashing things.
24. I would never think of letting someone else be punished for my wrongdoings.
25. I never resent being asked to return a favor.
26. I have never been irked when people expressed ideas very different from my own.
27. I never make a long trip without checking the safety of my car.
28. There have been times when I was quite jealous of the good fortune of others.
29. I have almost never felt the urge to tell someone off.
30. I am sometimes irritated by people who ask favors of me.
31. I have never felt that I was punished without cause.
32. I sometimes think when people have a misfortune they only got what they deserved.
33. I have never deliberately said something that hurt someone's feelings.

**APPENDIX J****DEMOGRAPHIC INFORMATION**

1. Your Gender: (please select one) Male    Female
2. Your Age: \_\_\_\_\_ (years)
3. Your Education (please select one):  
Freshman    Sophomore    Junior    Senior    Graduate Student
4. Your Race/Ethnicity (please select one):  
Asian    African-American    Hispanic/Latino    White  
Other (Specify: \_\_\_\_\_)
5. Your Height: \_\_\_\_\_ feet and \_\_\_\_\_ inches
6. Your Current Weight: \_\_\_\_\_ pounds
7. Your Ideal (Desired) Weight: \_\_\_\_\_ pounds

## APPENDIX K

### PARTICIPANT NOTIFICATION FORM OLD DOMINION UNIVERSITY

**Title of Research:** Project Friend Talk

**Researchers:** Jonathan Rudiger, M.A. & Barbara Winstead, Ph.D.,  
ODU Department of Psychology

**Description of Research:** You are asked to participate as a volunteer in a study as part of an educational and research program of Old Dominion University conducted under the supervision of Dr. Barbara Winstead of the Department of Psychology. The basic nature of this research, titled "Project Friend Talk" involves your anonymous completion of a variety of questions concerning your attitudes and experiences about yourself, your body, and your life. You will complete an online survey that should take less than one hour. This survey is administered online on a secure server. There will be no way to link your name or identity to your responses. At the end, you will be provided with a link to a separate site to provide information to receive your ONE psychology research participation credit.

**Inclusionary and Exclusionary Criteria:** In order to participate in this study, you must be a female of at least 18 years of age.

**Risks and Benefits:** The completion of this study may result in increased self-awareness regarding your attitudes about yourself and your life. For some individuals, this self-awareness may produce momentary discomfort. However, no appreciable adverse effects to your health or well-being are expected. Of course, there may be unforeseen effects for particular individuals. The main benefit to accrue from this study is better scientific knowledge of attitudes about the matters posed in the questionnaires. You may also find the questionnaires interesting and may learn something about yourself in the process.

**Costs and Payments:** You will receive ONE (1) psychology research credit for participation.

**Confidentiality:** Your answers will be revealed to no one but the researchers. Also, because the researchers will not have your name on the questionnaires, it will never be associated with your responses.

**Withdrawal Privilege:** You may withhold any answer to any specific item(s) or question(s) in the questionnaires. You may also terminate your participation at any time, without penalty.

**Voluntary Consent:** By continuing to answer the survey questions, you are indicating that you have read this form, that you are satisfied that you understand this form, the research study, and its risks and benefits. If you have any further questions about the research, please contact Dr. Barbara Winstead (757-683-4439) who will attempt to answer them.

**If you wish to volunteer to participate anonymously in Project Friend Talk,  
then proceed to the next screen.**

**If not, simply close this page in your browser.**

## **APPENDIX L**

### **DEBRIEFING SUMMARY**

Dear Participant,

First, we really appreciate your time and cooperative involvement in Project Friend Talk. We hope that you have found it to be interesting and convenient to participate.

The basic purpose of our scientific study is to better understand the relationship between certain aspects of friendship, emotional well-being, and body image. Friends play an important role in our self-perception, and it is important to understand the influence talking to our closest friend about physical appearance has on us. There are numerous factors that influence our self-image, but it is likely that certain patterns of communicating between friends play an important role with respect to how we personally feel. Again, thank you for your valuable contribution to our psychological research.

Primary Investigator: Barbara Winstead, Ph.D., Professor & Faculty Supervisor  
Department of Psychology, ODU  
bwinstea@odu.edu

Student Investigator: Jonathan Rudiger, M.A., Doctoral Candidate  
Department of Psychology, ODU  
jarudiger@gmail.com

## **VITA**

**Name:**

Jonathan A. Rudiger

**Department Address:**

Virginia Consortium Program in Clinical Psychology  
Virginia Beach Higher Education Center  
1881 University Drive, Suite 239  
Virginia Beach, VA 23453

**Education:**

- 2006 B.S., Old Dominion University, Norfolk, VA  
Major in Psychology
- 2008 M.A., Norfolk State University, Norfolk, VA  
Degree in Community/Clinical Psychology
- 2010 Psy.D., Virginia Consortium Program in Clinical Psychology, Virginia Beach, VA  
Degree in Clinical Psychology

**Clinical Experience:**

- Predoctoral Internship (2009 - 2010). Vanderbilt University – Department of Veterans Affairs Internship in Professional Psychology, Nashville, TN
- Practicum (2008 - 2009). College of William and Mary Counseling Center, Williamsburg, VA
- Practicum (2008). Williamsburg Center for Therapy, Williamsburg, VA
- Practicum (2007). Old Dominion University Counseling Center, Norfolk, VA
- Practicum (2007). Atlantic Psychiatric Services, Virginia Beach, VA
- Practicum (2007). Riverside Rehabilitation Institute, Newport News, VA
- Practicum (2006). Eastern State Hospital: Intensive Treatment, Williamsburg, VA